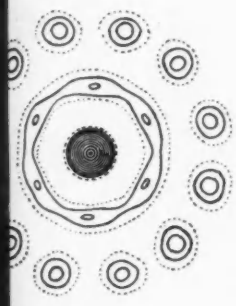
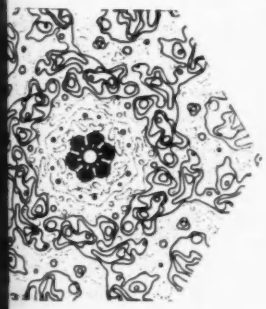
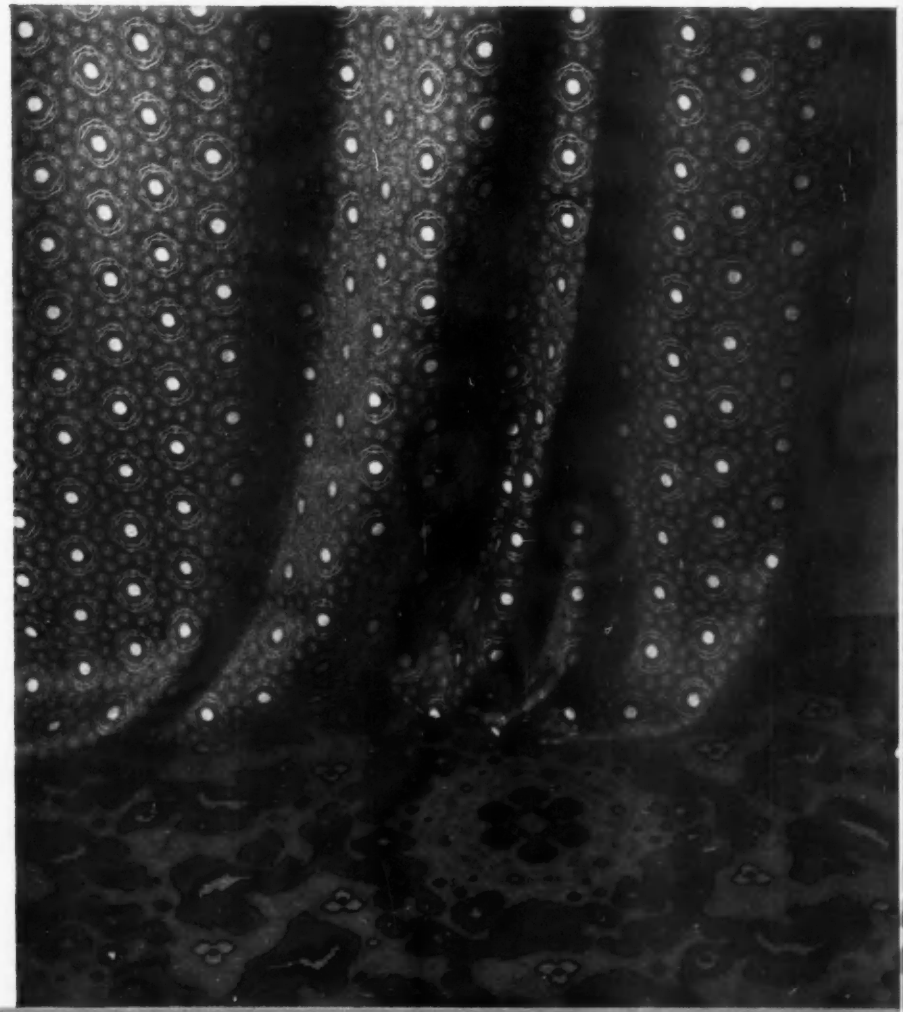
Design

THE MONTHLY JOURNAL FOR MANUFACTURERS AND DESIGNERS



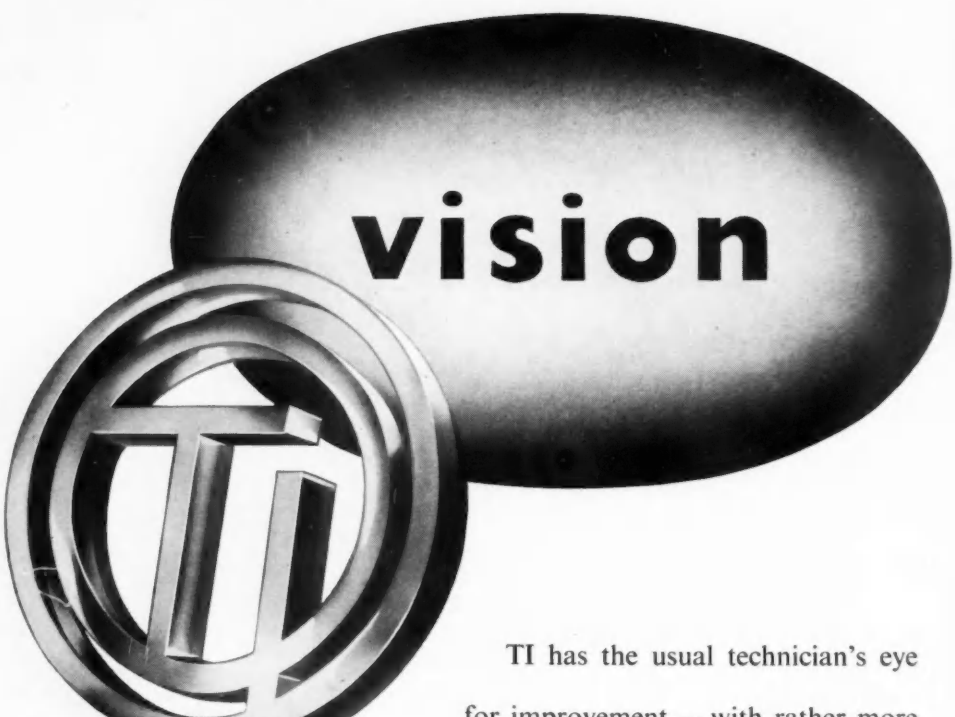
STIVAL PATTERNS
derived from
al structure diagrams
(see pages 12–25)





Combined Number 29-30 : May-June 1951

THE COUNCIL OF INDUSTRIAL DESIGN : PRICE TWO SHILLINGS



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May–June 1951

Design

THE MONTHLY JOURNAL FOR MANUFACTURERS AND DESIGNERS

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CONTENTS

COVER PHOTOGRAPH: The curtain fabric and linoleum—shown alongside the scientific diagrams from which their decorative pattern is derived—are two of the many designs evolved by members of the Festival Pattern Group. The story of this group's activities is told in full, with many illustrations in colour, on pages 12–25. *Photograph by Richard Sharpe Studios Ltd*

No ancestors' laurels

Until the question of architectural style gets settled, it is utterly hopeless to think about any great improvement in modern art. It is most sincerely to be hoped that in course of time we may get something of our own of which we need not be ashamed. This may perhaps take place in the twentieth century; it certainly, as far as I can see, will not occur in the nineteenth.

From a lecture by William Burges at the Royal Society of Arts in 1863.

ONE OF THE most remarkable features of the South Bank Exhibition is the almost total absence of "stylistic" architecture and design. There are no scholarly or unscholarly essays in classical colonnading, no Egyptian temples or Gothic revivals, no Queen Anne parlours or Tudor taverns. The same determination not to rest on our ancestors' laurels has impelled the selection of all the manufactured exhibits. The decision to concentrate on contemporary designs and to exclude reproductions from the past has been a matter of some controversy, particularly in those industries with proud traditions of craftsmanship. But whatever the Colonel Sibthorpes of our generation may say—and they have already given generous rein to their abuse and invective—we believe that the 1951 Festival will be as positive a landmark in design as the Great Exhibition of 1851 and the Wembley Exhibition of 1924 were negative, precisely because there has been so little compromise in the architecture and in the selection of exhibits.

It may be too early to claim that a contemporary style is emerging. The removal of formerly accepted disciplines in design and building is bound to give rise to many eccentricities and false scents. The South Bank suffers perhaps from too much imagination and individual initiative on the part of the many designers concerned, yet there is a unity of approach and a homogeneity of taste—particularly in the detailed furnishings and equipment of the pavilions—which presage "something of our own of which we need not be ashamed."

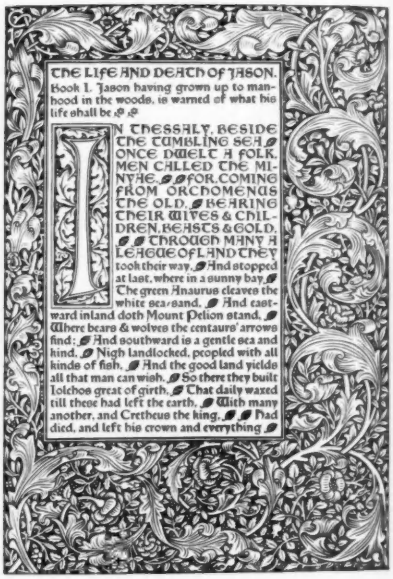
Were he alive today, Prince Albert would probably be the first to welcome these indications, for at the Mansion House banquet to launch the 1851 Exhibition he said: "I conceive it to be the duty of every educated person closely to watch and study the time in which he lives."

P. R.

THE BRITISH ONT

1851—1951

by No



Above, left: Interior of the Red House at Bexley Heath, designed for William Morris by Philip Webb and completed in 1860. *The house itself is a landmark in English architecture, and the interior probably the first example of the "cottage" style*

The Kelmscott Press book above (The Life and Death of Jason, 1895) *is typical of Morris's approach to printing—the page beautiful rather than legible*

A late Victorian interior—a museum of artwork and knick-knacks, requiring a domestic staff to clean. It has the redeeming feature of strong individuality

ONTRIBUTION TO INDUSTRIAL ART

by Noel Carrington and Muriel Harris

THE FIRST PHASE*

IT IS CONVENIENT to seize on certain dates in somewhat arbitrary fashion for reviewing trends and events, though serious historians continue to deplore the "century" habit. It happens that 1851 seems to present itself as a particularly useful starting-point for a survey of British industrial art, because the Exhibition of that year was indeed an apotheosis of exuberance and bad taste in all the decorative arts, housed though it was in one of the greatest triumphs of contemporary engineering. The numerous books and articles now recalling that Exhibition make it familiar to us.

It was not to be expected that, triumphing as it did in material success and prestige, any immediate revolution in public taste would follow. The next 50 years were not years that left a legacy which we can regard with pride—not, at least, in the general physical aspect of our civilisation, the public buildings, housing and furniture of the Victorian age, an age of fabulous material prosperity. It was amongst a few thinkers, poets, artists and craftsmen that revolt was born. That such a very English Englishman as William Morris was the father of the so-called "Modern Movement" is a fact which, as far as we know, no historian cares to dispute.

There certainly were others besides Morris who felt that our artistic contribution to the Great Exhibition did not give us laurels to rest on. The then mayor of Bradford, one Henry Forbes, remarked of the Exhibition "that it was in the Department of Design that our English deficiencies were most apparent and no greater benefit could be rendered to the worsted trade than the introduction of a purer and more cultivated taste. . . ." In 1872, at the first of a series of exhibitions held in the Albert Hall, an illustrated index (which was entitled *The Key*) deplored "the complete separation of artistic work from subjects of utility." There were similar outbursts of dissatisfaction, but the authors could not see clearly why the separation of art and industry had become an effective divorce. Ruskin the moralist went to the root of things when he attacked the commercialism of his contemporaries. His personal excursions into architecture and artistic criticism are generally regarded as unfortunate, and he came to regret many of them later in life, but his sincerity and magnificent gift for prose did succeed in arousing the conscience of thousands of cultivated Englishmen and in preparing the ground for the Arts and Crafts movement.

Morris, too, was a gifted poet and writer, but he was far more influential than Ruskin because he was practical with his hands and a natural craftsman. Morris found so many disciples because he showed them the joy to be derived from making things with their own hands. "What business have we with art at all, unless all can share it." His gospel was powerful because it was simple and straightforward. It had the force of a new religion—and that at a time when old religious faiths were losing their authority. His message was a challenge to the whole structure of capitalist and commercial society, to the vested interests of art-dealing, to all that was smug and self-satisfied. His appeal found an immediate response in thousands of artists, till then frustrated and without a purpose in life, and to an even wider public, those to whom he said: "Have nothing in your home which you do not know to be useful or believe to be beautiful."

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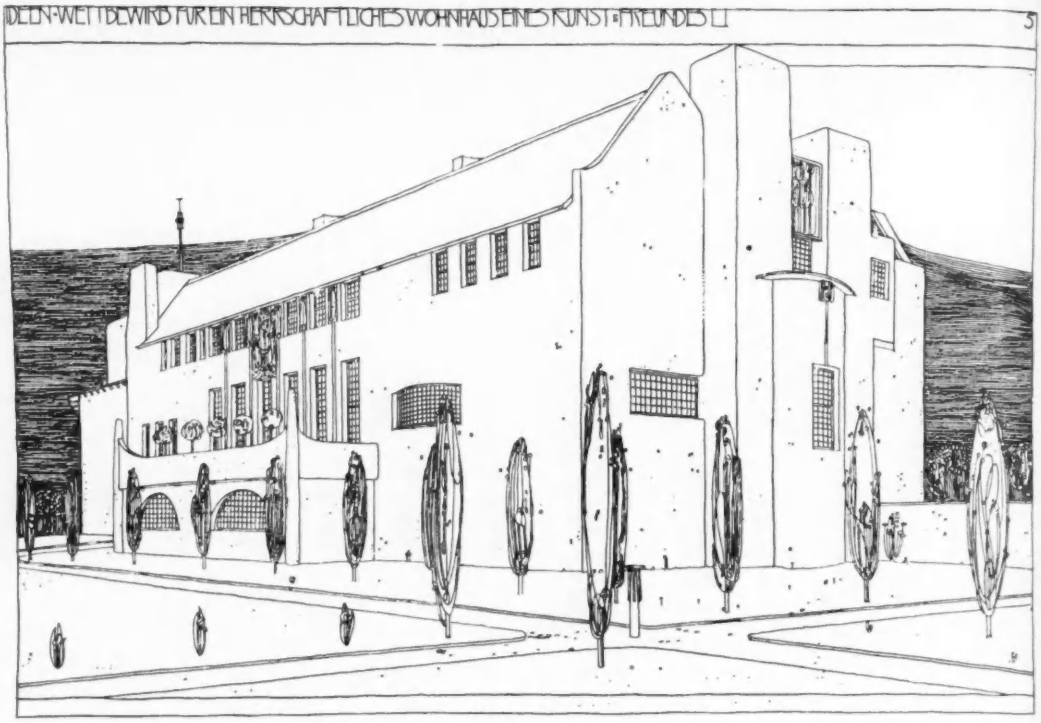
* This article, which covers approximately the first half of the period under review, will be followed by a second article in DESIGN for July, reviewing the development of design in Britain from 1900 to the present day.



"The house of an art-lover," designed by C. R. Mackintosh; illustration used in Muthesius' work on contemporary British design

That Morris had such a hatred of the machine civilisation and staked all on handicrafts is generally regarded as unfortunate. "As a condition of life," he declared, "production by machinery is wholly an evil." But we feel it must be granted that if he had not had an overpowering faith of this kind—an unworldly faith—he would not have had the unequivocal following that he had here and abroad. (In his brilliant book on the *Pioneers of the Modern Movement*, Dr Nikolaus Pevsner says of Morris that in what he made he was constructive but in what he taught he was destructive. The distinction is not perhaps fair, because Morris would not have been the craftsman he was if he had not been the philosopher, nor the effective teacher if he had not been the craftsman.) His complete disregard for eighteenth-century classicism and elegance, and his idolatry of the middle ages, certainly gave the craft movement a distorted angle of vision, but the fact remains that he started us thinking about the form of everything we use, and it was not very long before some of his personal followers, at any rate, began to look beyond the narrow tenets set by handicraft technique.

Interior of the Glasgow School of Art by C. R. Mackintosh, 1898. The work of this pioneer of the modern movement aroused more interest in Germany than in his own country

Amongst these were C. R. Ashbee, Cobden Sanderson, and, perhaps more influential in the end, William Lethaby. Ashbee, who was active in forming a guild of handicraft workers, towards the end of his life declared that "modern civilisation rests on machinery, and no system of endowment, or encouragement, of the teaching of art can be sound that does not recognise this." Again, Cobden Sanderson affirmed that "machinery can be redeemed by imagination." Lethaby, a scholar and a medievalist, was also one of the small band who founded the Design and Industries Association. The evolution that took place in his mind marks the great change which occurred at the turn of the century.

Two other men of distinction must be mentioned here if we are recording the contribution which this country made to industrial art—both of them architects, Voysey and Mackintosh. Just as the nineteenth-century architects, fashion-mongering in the archaic styles, were so largely responsible for the worst aberrations of the industrial arts, so architects in England as abroad played a large part in the renaissance when it came. Justice has only recently been done to Voysey, a modest man by nature, whose work was mostly of the country-house and cottage type, and attracted more attention in Germany than here. There is a record of an interview with Voysey in the *Studio* of 1893: "Let us begin with discarding the mass of useless ornaments and banishing the millinery that degrades our furniture and fittings."

Mackintosh's buildings in Glasgow need to be put against their contemporary background to seem remarkable, but again he was highly rated abroad and not without some influence here. His decorative adventures in the realm of *art nouveau* show at least his courage as an innovator and the wide range of his interests.

Only recently also has some justice been done to our nineteenth-century engineers, the builders of railway stations, bridges, docks, locomotives and ships. That these were rejected by Ruskin and Morris is beside the point. They had a public which was not afraid to admire them. That they caught the imagination of the masses can hardly be doubted, for they found their way into the popular art of pottery decoration and print-selling; it can have been no accident that Frith's *Paddington Station* proved a best-seller of its year. Sir Gilbert Scott doubtless believed that one happy result of his red-brick Gothic hotel at St Pancras was to screen the naked iron arches of the engineers; but generations of schoolboys have known which building to admire.

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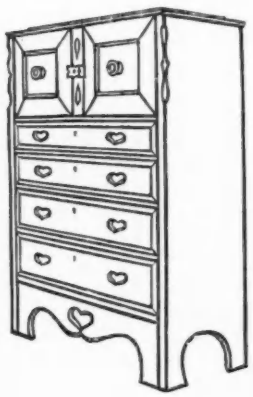
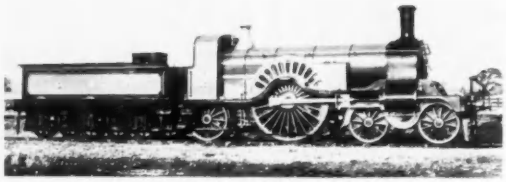


Two standard pieces from early Heal catalogues at the turn of the century. The slight decorative influence of Art Nouveau *motifs can again be detected*

Oak furniture designed by C. F. A. Voysey about 1905. *The chairback is in the current decorative style, but the furniture is mainly in the simpler old English tradition*



At the close of the century, which is a convenient moment again to pause in this survey, the Arts and Crafts Movement had reached its peak of enthusiasm and had achieved some considerable success in its own limited sphere. Morris's own handicraft ventures, tapestries, wallpapers and printing of books, had proved even financially successful. There was now a considerable body of patronage for Gimson's furniture, Cobden Sanderson's bookbinding, and De Morgan's pottery. All this and Howard's Garden City Movement had drawn the attention of the more thoughtful observers on the Continent to the fact that England had become the inspiration of a new movement. Mutethius, cultural attaché at the German Embassy in London, sent home reports which would have flattered our pride if we had taken the trouble to translate and read them when they were published in Germany. He was instrumental in forcing on the attention of the younger architects in Germany what English pioneers had accomplished here. That the lead now passed from this country is another story.

At top of page: One of the famous locomotives of the Victorian period, a G N R Stirling (1870). *In contrast, in St Pancras Hotel and Station, left, Sir Gilbert Scott hid the great arches of the engineers behind a red-brick Gothic palace* (c. 1860)

Frith's famous painting of Paddington Station in 1862, *reproduced below, shows that one artist at least appreciated this magnificent structure*

'There is so much leeway to make up'

Avoidance of strain on the operator must play a larger part in the design of machines

by Sir Ben Lockspeiser, KCB, FRS*

CIVILISATION, on its material side, is largely a matter of tools and machines. Take our machines from us and most of us would starve, whilst the rest would eke out an existence on a level of comfort and amenity that few would willingly accept. This dependence on machines has given man a large measure of dominance over his environment, but not without cost. In mind and body he has been subjected to the stresses and strains deriving inevitably from the way he has chosen to live. We are becoming increasingly concerned with these consequences, and very properly so, because there is so much leeway to make up.

Relatively speaking, we know so much about how machines work and so little about how the mind and body work. This is not surprising, for we design the machines ourselves, and they are more amenable to measurement in operation than are the characteristics and behaviour of human beings. Yet there is an intimate connection between the machine and the person who uses it. The machines of the engineer are becoming more and more complicated, with a corresponding tendency to become more difficult to control. We can no longer afford to leave the human operator to get along as best he can. The importance of the study of questions such as these is fully realised by the Ergonomics Research Society and is the main reason for its existence. It brings together scientists from a wide range of disciplines—anatomists, physiologists and psychologists from the biological field, together with engineers, physicists, architects and those interested in production and management. All have a common interest in the study and avoidance of those strains to which the human organism is exposed in mind and body in the environment created by the engineer.

It is one of the misfortunes of science that it becomes burdened with jargon. This is a pity, because we want to enlist the help of large numbers of people who are not scientists. We want the help of the people who use machines, whether they are lathe operators, mill hands, lorry drivers, aircraft pilots or signalmen. Such people can tell us much about their machines and the effect of the machines on them; we believe that they would be much better off if more were known about the business of doing more work with less effort (a simple definition of ergonomics for which I am indebted to a Birmingham newspaper).

It would be a mistake to give the impression that, by giving the name *ergonomics* to the study of the relation between man and his work-environment, a new science has been invented. The problems come within our everyday experience, whether it is the design of a door-handle to make it easy to open whether our hands are empty or full, or the marking of the dials on an electricity meter to make it easy to read and to reduce the number of mistakes made in reading it. The approach to practical problems in this field has, until recently, been largely of an empirical character. No doubt empiricism will be with us for some time yet, but the more basic knowledge we have at our disposal—the more informed our empiricism—the better.

It is much to the credit of the design engineer that he has, in the past, achieved so much, with little guidance from the biologist and little basic training in human anatomy, physiology and psychology. This brings us to the heart of our problem. What are the criteria by which a successful machine design is to be judged? The engineer has tended to rely too much on measures of engineering efficiency expressed as a

continued on page 36

* Secretary of the Department of Scientific and Industrial Research. This article is summarised from Sir Ben Lockspeiser's opening address at a symposium of the Ergonomics Research Society—at the University of Birmingham, 18 April.

Many visitors to the South Bank Exhibition pause to look twice at the cast bronze door-handles of the Regatta Restaurant. In this building the work of the Festival Pattern Group can also be seen. Designers, Misha Black and Alexander Gibson

Poised above helicopter blades, in the Transport and Communications building, is the Supermarine seaplane which in 1931 won the last Schneider Cup race for Britain: an aircraft that has seldom been equalled in elegance of line. *Photograph by Dennis Hooker*, AIBP, ARPS

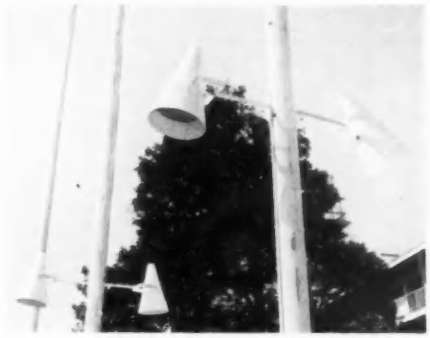
This South Bank preview photograph shows the honeycomb pattern of one of the railings (later completed by the fitting of a wooden handrail)

Three advertising associations co-operated with the Festival Office to organise a Festival Poster Competition: the Bev poster was one of 15 chosen from 67 entries; now displayed in York Rd. Designers: Lewitt-Him

From the FESTIVAL

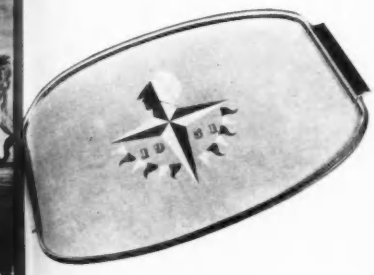
At the Festival Pleasure Gardens, Battersea, the International Wool Secretariat displays fashions from 1351 to 1851 in model form. The nineteenth-century Guards officer, right, is one of the figures designed and made for the Secretariat at the Leicester College of Art

The packaging of Biro's Skylon-shaped souvenir pen was designed by W. M. de Majo and made by Richard Pye and Co Ltd, with acetate work by their associated company, Transparent Packings Mfg Co Ltd



Another example of street furniture from the South Bank: flag-poles which do double duty as lamp-posts

The Festival symbol (designed by Abram Games) has been incorporated by Warerite Ltd in their cigarette-proof material. Below, a Warerite tray base in a mount by Besway Manufacturing Co Ltd

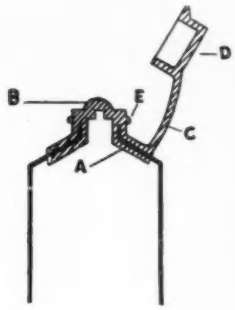


Below, a shilling paper souvenir, printed in colours and die-cut. By George A. Adams, MSIA

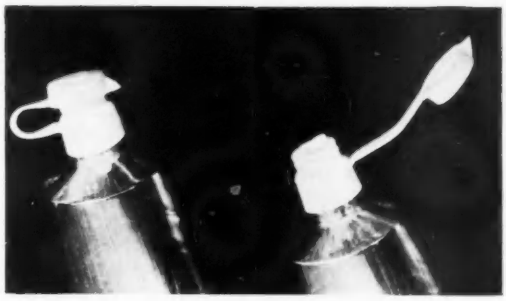
Packaging in three countries

THE PACKAGING of Richard Shops' new perfume was designed by Sir William Crawford and Partners Ltd. The bottle is necessarily small but it is both distinctive and stable. It has a white plastic cap; colour of carton and label is pink. The bottle was manufactured by the International Bottle Company; printers, Storey Evans and Co Ltd. Retail price of the perfume is 3*s* 9*d*

FROM AMERICA: the *Color File*, below, was evolved for the Martin-Senour Co, paint manufacturers. Morton Goldsholl was responsible for both constructional design and surface design of the file—one of the 13 award-winners in this year's exhibition of "Design in Chicago Printing," arranged by the Society of Typographic Arts (for which 532 entries were submitted, 132 exhibited)



A plastic material
B airtight seal (to be cut)
C polythene strip
D cap
E single thread, over which the cap is pressed home



FROM FRANCE: the new polythene closure, above, is moulded on to the tube. Cap and collar are parts of the same polythene moulding, a strip of the material forming a flexible link between them. To open the tube for the first time, the small dome formed in the polythene under the cap is pierced or cut away. When the cap is replaced, pressure on the tube expands the opening and so ensures a tight fit. Produced by Isodio-Moulages, of Neuilly-sur-Seine

THE WIDESPREAD USE of china and good-quality earthenware in American homes has been made possible by the American custom of buying *place settings* rather than complete services—enabling a set to be built up without large outlay at any one time. Booths Ltd of Tunstall, Staffordshire, now cater for the American market by packaging a place setting (cup, saucer, and three plates of different sizes) as a unit. The box, right, was developed in consultation with Alfred Kent and Sons Ltd; a colour to complement any of 12 pottery patterns was chosen by Booths' design team; a gold stamp for the lid was designed by Gee Advertising Ltd, Leicester

TWO BRITISH BISCUIT TINS designed for North American markets. Left, by Richard Lonsdale-Hands Associates for Peek Frean—whose trade in Canada has trebled in recent years. Right, by George Collett, MSIA, for Meredith and Drew—who attribute the success of this line in the USA, in part at least, to the package design

FESTIVAL PATTERN GROUP

by Mark Hartland Thomas, *Chief Industrial Officer, Council of Industrial Design*

TWENTY-SIX LEADING British manufacturers have been working together at the Council's invitation for some 18 months upon a programme of design development in connection with the Festival of Britain. Since co-operation on this scale between manufacturers, in the field of design, is of even greater interest than the idea that brought them together, I am relating the story of the Festival Pattern Group at some length, as well as illustrating their work and explaining its theme.

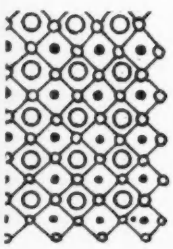
First the theme—then the reader can look at the pictures and come back to the story. The products illustrated on pages 13 to 25 are all decorated with patterns derived from crystal structure diagrams: these are the maps that a scientist draws to record the arrangement of the atoms in particular materials.

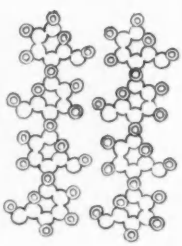
A crystal structure diagram takes the form of a repeating symmetrical pattern, like a wallpaper. Examples of them are given below. They vary in character according to the different materials examined, or the different features in a particular material brought out in the diagram (like the difference between a relief map and a road map of Britain), or the difference in plane at which the cross-section has been taken (like the difference between the ground plan and the elevation of a building).

Considerable ingenuity has been required of the industrial designer in adapting a diagram to his own medium, and the designer's name is given with the manufacturer's in the captions on the following pages.

The project began in May 1949, when I attended a week-end course at Ashridge organised by the Society of Industrial Artists. The theme of the course was to show industrial designers some visual material from other arts and sciences in order to broaden our minds. Among the papers read was one by Professor Kathleen Lonsdale on crystallography, in which she remarked that crystal structure diagrams

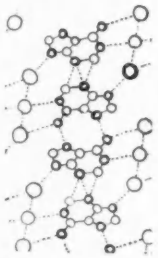
EXAMPLES OF CRYSTAL STRUCTURE DIAGRAMS





PEROVSKITE CELLULOSE

The diagrams reveal that perovskite is close-packed and continuous in three dimensions, whilst cellulose is fibrous and stringy



ADENINE HYDROCHLORIDE

Both diagrams above relate to the same material, as can be seen by comparing the unit of structure of the two patterns. The difference in character is due to the former showing by dot and line the positions of the atoms and the forces binding them strongly together, while the latter is a "Patterson map" showing by contours the interatomic distances in the structure

POLYTHENE

Both diagrams relate to polythene but the ence is one of plane of section. The former part of one molecule which is indefinitely the latter is a cross-section the other way, ing a group of such molecules side by side

might be used in textile designs. At lunch after her lecture I said I was thinking of taking up her suggestion with manufacturers; but first, where should I get the material? She at once referred me to a colleague, Dr Helen Megaw, of Girton College, Cambridge, who, she said, had drawn out some of the diagrams as a basis for decoration.

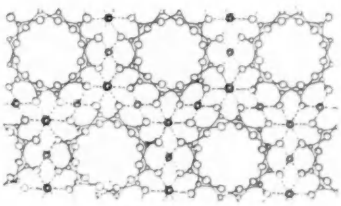
I wrote to Dr Megaw and she sent me an article that she had written for publication. A significant point in the article was that whilst in the popular view a scientist laboured at research in order to gain control over the forces of nature, this was often not his real motive. To many crystallographers the chief incentive was sheer delight in the beauty of the patterns in the basic structure of nature that were revealed, often for the first time, by their studies. This opinion, coming from the scientific side, was a happy augury for the project that was taking shape in my mind.

I asked Dr Megaw to agree not to publish her article, explaining that though the proposal to use crystal structure diagrams for textiles would evoke interest, it would be only a passing one: that an idea requiring expensive development for its realisation would be taken up by nobody if it was broadcast to everybody. This principle also made it necessary for me, in order to launch the project, to approach individual manufacturers and to limit the invitations, on a Rotarian system, to one manufacturer for each kind of product. As an acknowledgment, those who accepted made a contribution towards expenses.

continued overleaf

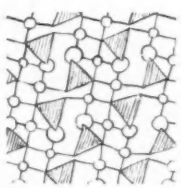
Dr Helen Megaw of Girton College, Cambridge, the Festival Pattern Group's scientific consultant, setting an X-ray goniometer to take photographs from which a crystal structure diagram is calculated. In the background a three-dimensional model of afwillite can just be seen

BERYL



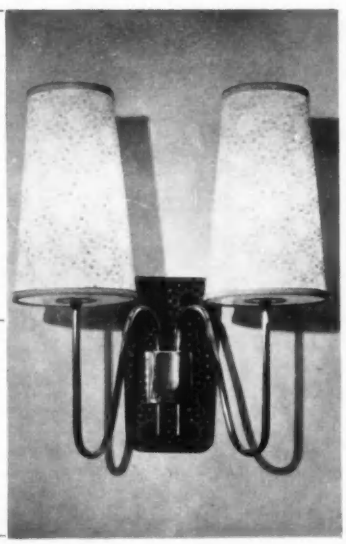
Below, wall-bracket light: manufacturer, GEC (designer, R. J. Reynolds). Curtain-lace: manufacturer, A. C. Gill Ltd (designer, H. Webster). 1½ x 2¾in. repeat. These pictures epitomise the spirit of co-operation in the Group; the pattern in the shade is the actual lace shown alongside it (which can be seen in the Regatta Restaurant), and the same pattern is echoed in the plastic backplate by a third member, Warerite Ltd

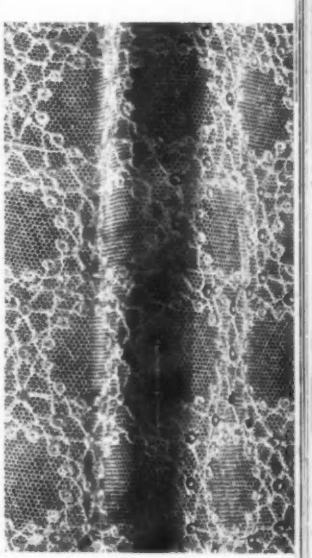
AMETHYLENE
AMINE
YDROCHLORIDE

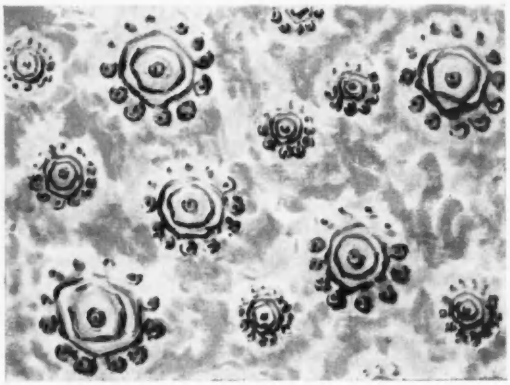


AFWILLITE

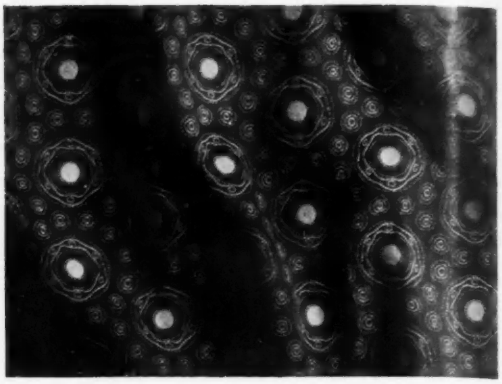
Besides the differences for scientific reasons, there is a wealth of variety in style as the patterns meet the eye and recall quite unscientific associations. The first of these three might almost be Tudor strap ornament, the second cocktail glasses and bubbles behind a bar, the third has a niggling little Paul Klee flavour



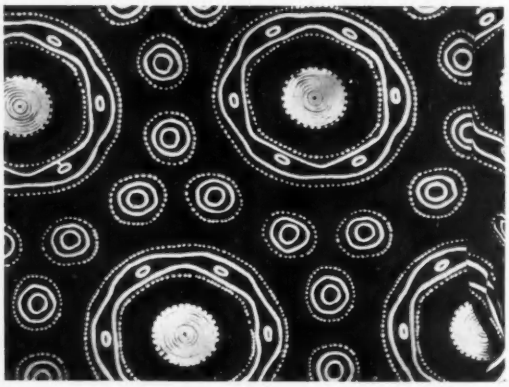




Sketch for a dress print: Arnold Lever (London) Ltd: repeat 15 x 15in. (approx).
The designs on these two pages are derived from the haemoglobin diagram shown opposite. This one, by Arnold Lever, goes furthest from the original in adaptation



Curtain fabric, woven in yarn-dyed viscose rayon and cotton: Barlow and Jones: repeat 2½ x 4in.
A green version of the same fabric appears on the front cover. This design, by contrast with Lever's dress print, is very close to the original



Screen printed cotton: Warner and Sons: repeat 14 x 26in.
This can be seen in the cinema foyer at the Exhibition of Science, South Kensington

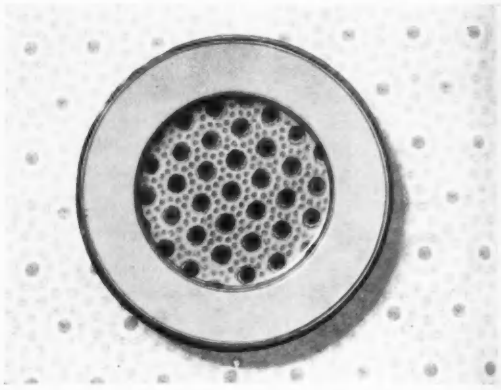
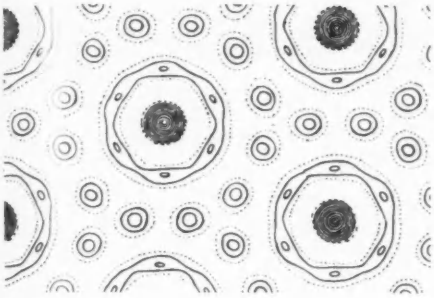


Photo-lithographic transfer proofed on dinner plate: Royal College of Art (Peter Wall): repeat 1⅛ x 1⅞in. Screen printed cotton cambric: Barlow and Jones: repeat 2¼ x 3¾in.

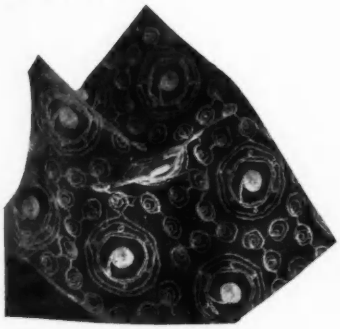
Dr Megaw agreed not to publish her ideas for the time being and, later, to be retained as scientific consultant. Her main contribution has been the essential one of supplying the crystal structure diagrams, both from her own researches and from those of scientific colleagues, arranging payment for non-exclusive licences under their copyright. She has also explained the diagrams to members of the Group and checked the accuracy of scientific statements in our written material (including the present article).

Before concluding these arrangements for the continued supply of the diagrams, I had shown some of them to colleagues at the Council of Industrial Design and confirmed my own opinion that here was very promising raw material for applied decoration. I had it in mind that we are at a stage in the history of industrial design when both the public and leading designers have a feeling for more richness in style and decoration, but are somewhat at a loss for inspiration. Traditional patterns that have come down to us from ancient Greece and elsewhere, had lost much of their sparkle by now; and the fashionable alternative of a doodle on a piece of paper, folded for symmetry, could hardly lay the foundations of a new school of design.

But these crystal structure diagrams had the discipline of exact repetitive symmetry; they were above all very pretty and were full of rich variety, yet with a

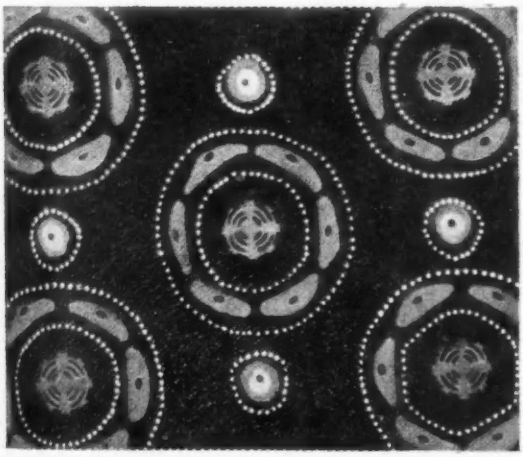


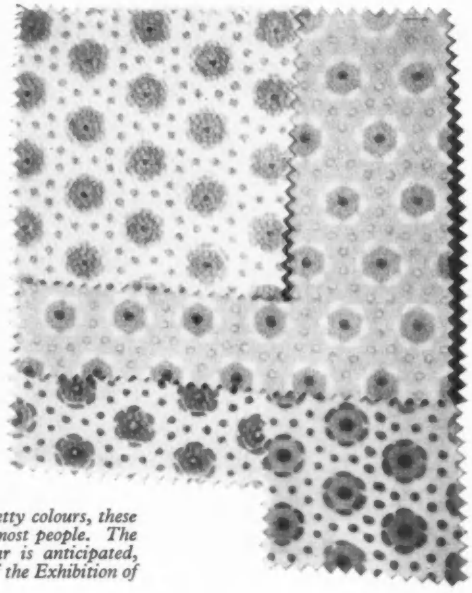
HAEMOGLOBIN



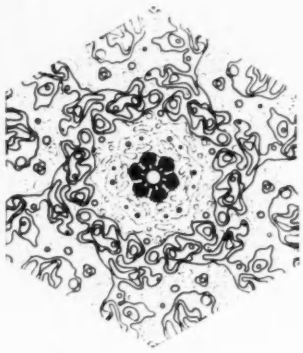
Embroidered cotton lace: A. C. Gill (H. Webster): repeat 2¾ x 3¼in.
The necessities of the machine have required departures from the original that bring out the character of the material

Plastic sheet: Warerite (Martin O. Rowlands): repeat 1½ x 1¼in.
Tie silks: Vanners and Fennell (B. Rowland): repeat ½ x ⅞in. and 1⅜ x 1⅜in.
The left-hand tie is from the china clay diagram, p. 25. The right-hand design is perhaps the most successful adaptation of the haemoglobin diagram, though the triangular framework has been altered to a square



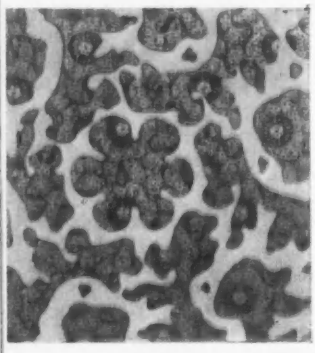


ICI Leathercloth (C. Garnier): repeat 12½ x 9in., 5¼ x 3in., and 1½ x 2¼in.
Though it is not the first time ICI leathercloth has been made in pretty colours, these examples and others on p. 19 will be the big surprise in the project for most people. The material is for use in upholstery and wall-covering where heavy wear is anticipated, especially in vehicles. It can be found in several places in the furnishing of the Exhibition of Science, South Kensington

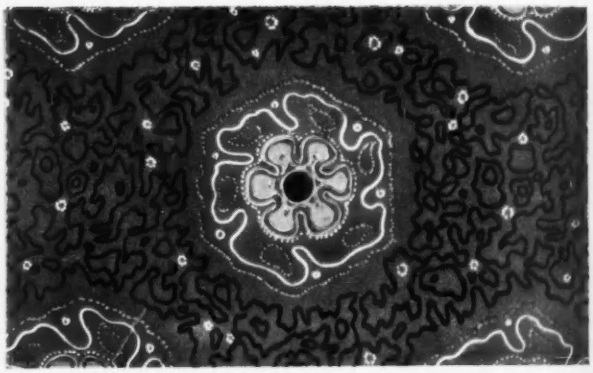


INSULIN

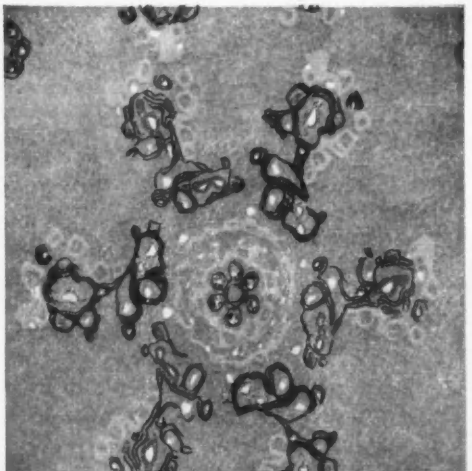
Bride and bridesmaids' veils in lace. A. C. Gill (H. Webster). A free adaptation using part of the diagram as an isolated motif



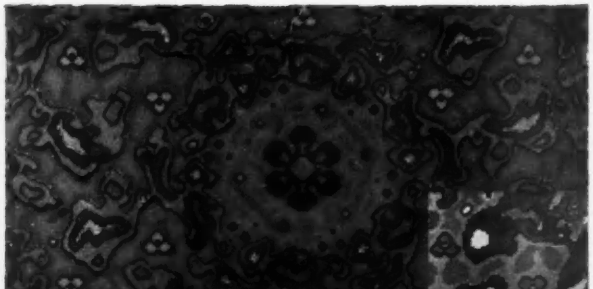
Oxvar *decorative finish: Vernons Industries (W. T. Higgins): repeat 7 x 4in. and 31 x 17in.*
By this offset process a decorated wearing surface can be applied to many different materials in furniture, wall-coverings and the like. The witty device of using the pattern twice, at two different scales, can be seen again in the Warerite sample on p. 18

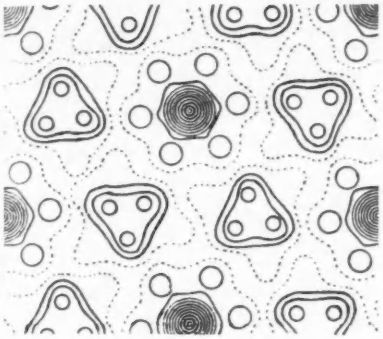


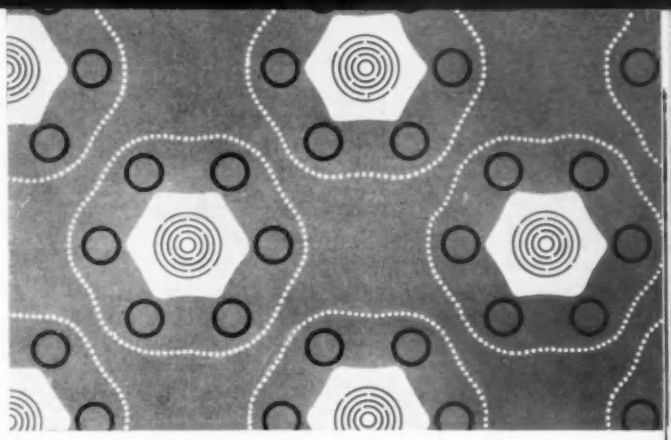
Wallpaper: John Line and Sons (William J. Odell): repeat 21 x 21in. The change from the hexagonal grid of the diagram to a square repeat was radical, but despite the bold treatment, character is not lost. To be seen in the Regatta Restaurant
Stencil-inlay linoleum: manufacturer, anonymous (designer, E. H. Tee), repeat 18 x 36in.
The same design as on front cover, with an alternative colouring inset, bottom right. The bright colours are for those who like Turkey carpet effects, without giving them an imitation carpet—from an industry that has produced imitations of every other conceivable floor-covering. The grain here is not *imitation carpet-tufting, but the proper result from an ingenious mechanical process*



Polyvinyl chloride sheeting: Dunlop (Mary A. Harper): repeat 9½ x 10¾in.





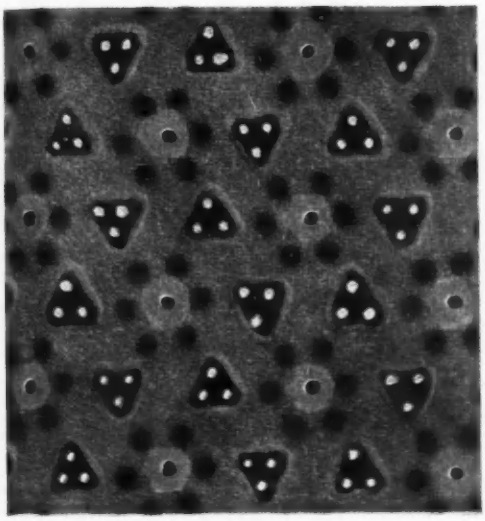


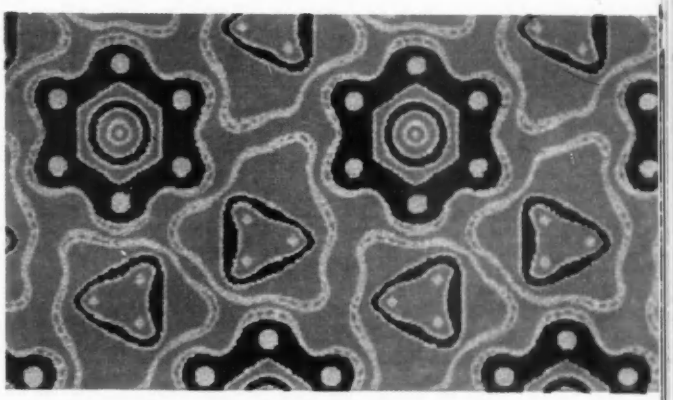
INSULIN

On right, wallpaper: John Line and Sons (Robert Sevant): repeat 10½ x 10½in.
Below, ICI Leathercloth (C. Garnier): repeat 2 x 1⅛in.

Three very different adaptations of the same diagram. Sevant converts the hexagonal repeat into a square one and drops half the original in doing so. Garnier emphasises the motif that Sevant has omitted, whilst Brown lays the emphasis the other way, slightly displacing the subsidiary motif

Below, carpet: James Templeton and Co Ltd (G. Brown): repeat 14½ x 27in.

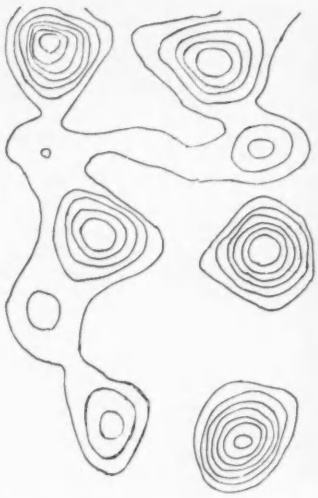




remarkable family likeness; they were essentially modern because the technique that constructed them was quite recent, and yet, like all successful decoration of the past, they derived from nature—although it was nature at a submicroscopic scale not previously revealed.

To check their application to textiles, the branch of industry most likely to be concerned, I consulted Dennis Lennon, then Director of the Rayon Industry Design Centre. He referred to one of his leading industrial members (who later joined the Group) and gave me an encouraging answer. The next move was at the Exhibitions Presentation Panel of the Festival of Britain. I reported to my colleagues there that I had a special project under way for which I wanted to earmark provisionally one of the restaurants of the South Bank Exhibition. Misha Black volunteered to hold the Regatta Restaurant, for which he was architect, until I was ready to tell them more about the proposal. This was a particularly happy chance for I found later that Dr Megaw's article, mentioned above, had originally been written for a publication in which his firm, Design Research Unit, was concerned. It meant that he and his fellow-architect Alexander Gibson were already sympathetic to the idea; they have worked enthusiastically with the members of the Group in the furnishing and decoration of the Regatta Restaurant as the centrepiece for the promotion of the project.

There was one more check to make before going

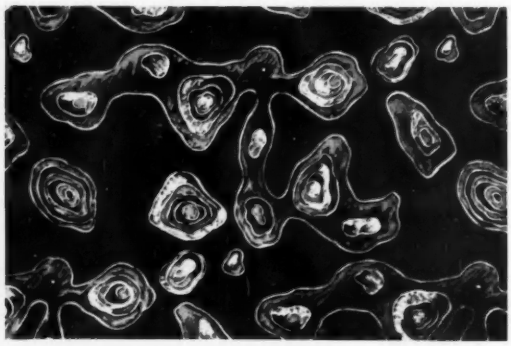


AFWILLITE

Dress print: British Celanese (S. M. Slade): repeat 12 x 6½in. The Celanese examples, here and on p. 19, make play with the contour type of diagram which is like the free-shape outline of current fashion

Plastic sheet: Warerite (Martin O. Rowlands): repeat 2 x 7in. and 4 x 14in. As in the Vernon sample (p. 16), the designer has superimposed the pattern again, to a larger scale

Sketch for warp tapestry curtain: Warner and Sons (Marianne Straub): repeat 22 x 32in.

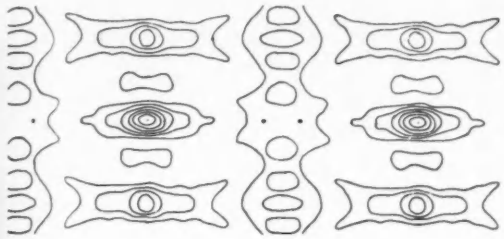


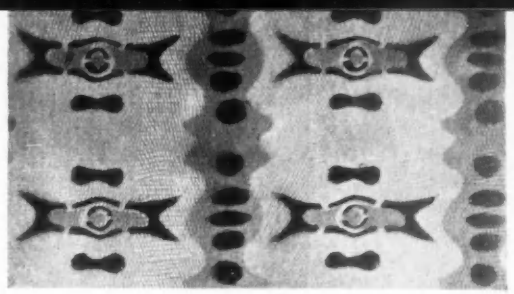
Wallpaper: John Line and Sons (William J. Odell): repeat 21 x 21in.

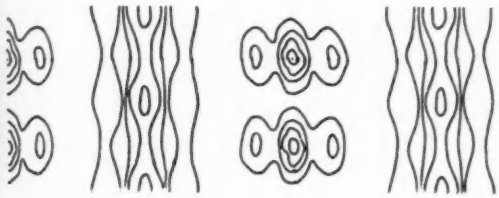
ahead with it as a Festival of Britain project, namely on the scientific side. I share with Ian Cox (Director, Science, for the Festival) responsibility for the development of the theme of the South Bank and other exhibitions: he takes the scientific side and I the industrial. So I told him how I was planning to steal some of his scientific thunder and apply it to mere industrial art—Jupiter's fire degraded to Vulcan's forge. He exclaimed that this was the best thing that had happened that year, and explained the reason. Crystallography was a branch of science not only of first importance in the modern world, as I knew, but also one that is particularly highly developed in Britain, and it was to figure in the Dome of Discovery and at considerable length in the Exhibition of Science, South Kensington. I was certainly to make the results of my project available to support his displays. This I readily agreed to and results will be seen at the Science Exhibition, South Kensington, where several members of the Group have contributed to the furnishing and equipment.

continued on page 20

Left: These two can both be seen in the Regatta Restaurant. Compare the difference in scale and treatment of the pattern, done to harmonise together, assisted by matching colours. Difficulties of marketing custom have frustrated attempts to match designs and colours between different manufacturers, but it remains a promising field for design development, especially if matching sets could be sold ready-made

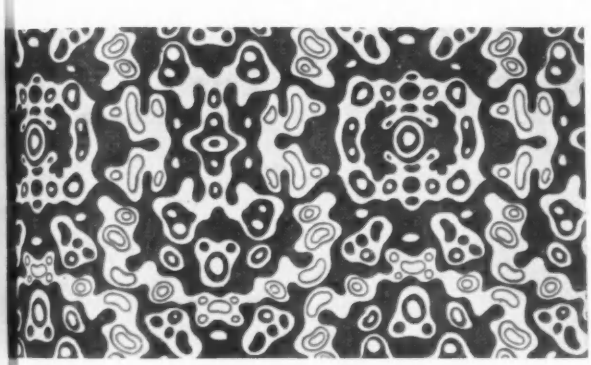






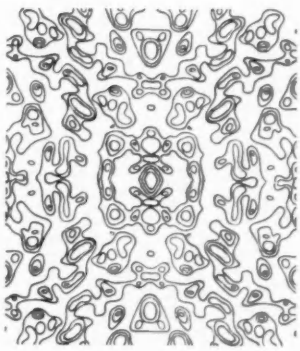
MYOGLOBIN

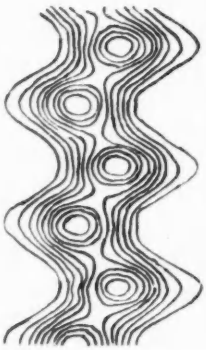
Right: ICI Leathercloth (C. Garnier): repeat 1¼ x 3¾in. and 4½ x 2¾in. These diagrams have not required so much alteration to suit the material as the insulin diagrams used for leathercloth on previous pages

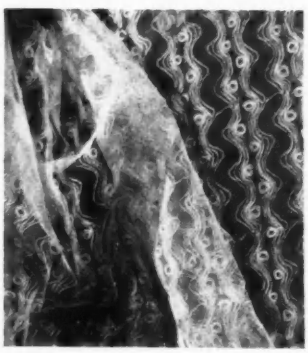


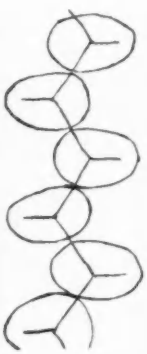
HORSE METHAEMOGLOBIN

Dress print: British Celanese (S. M. Slade): repeat 5⅛ x 3⅝in.





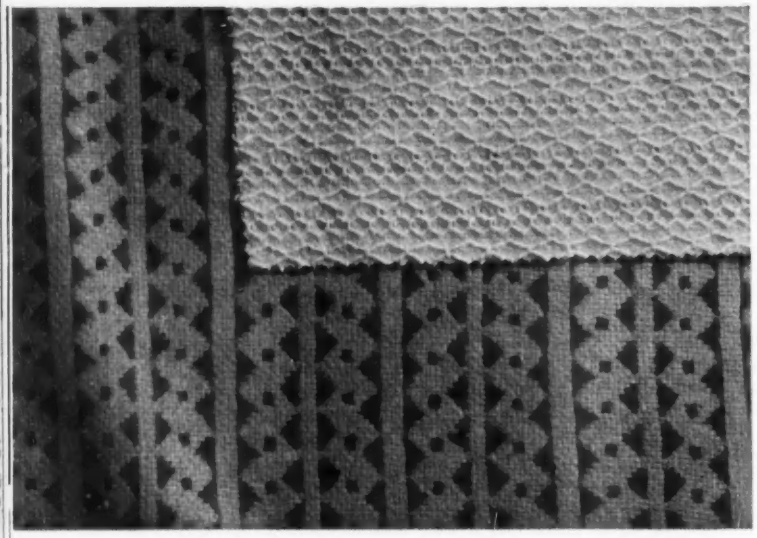


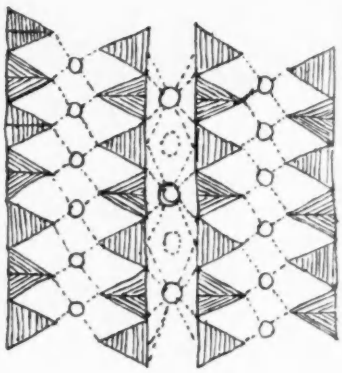


POLYTHENE

POLYTHENE

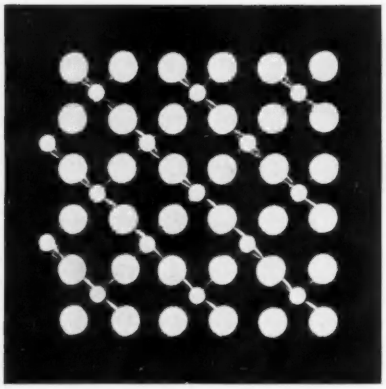
Embroidered cotton lace: A. C. Gill (H. Webster): repeat 1 x 1½in. Right, cutlery and flatware: Elkington and Co (H. G. Bowring). It is easier to spoil silverware by decoration than to improve it. Here the designer has graduated the pattern in sympathy with the profile and made a decorated handle that is as good as, if not better than, the plain one (p. 25)





MICA

Woollen dress fabrics: Dobroyd (Tony Dawson): repeat ½ x 2in. and ½ x ⅝in. Two essays on the same diagram. The blue one is also done in bright red and in yellow



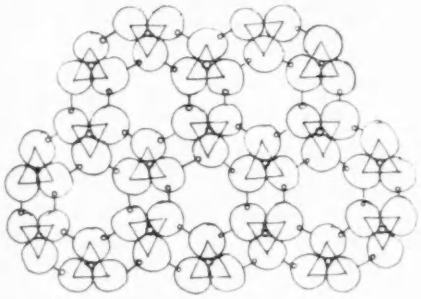
Pierced metal sheet: G. A. Harvey: repeat 1 x 1 inch. Pierced metal has a thousand applications, from ventilator grilles to waste-paper baskets. The piercing, which is required by function, necessitates some sort of pattern. In the past such patterns have been too ornate; nowadays they are perhaps too modest. In the Group's experimental work, Harvey's did several that were more ambitious than this. Public interest in the Festival Pattern Group may encourage them to make tools for some of them

CRISTOBALITE

We agreed that the use of crystal structure diagrams in industrial design was a true development of the theme of the South Bank Exhibition, which was to be a combined exhibition of science, technology and industrial design. Indeed, we reflected that a hundred years ago the Prince Consort had tried to bring art and science together again in harmony, but had failed. We were attempting the same task again at his centenary and this was to be one of the means of carrying it through.

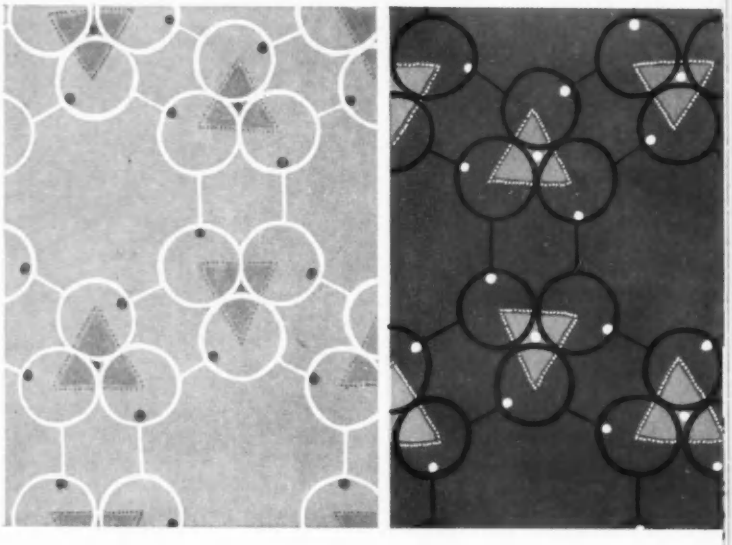
The preliminaries were now completed—by mid-August 1949—and the next four months were spent in collecting members for the Group and helping them to get to work. I was careful to explain that I was not providing a ready-made short cut to good design: the scientific diagrams were only a source of inspiration for designers to use in creative work.

The first meeting of the Group took place on 16 December 1949, by which time 14 manufacturer-members had joined. In deciding to which firms to extend invitations, I had to think which were likely to venture with us in a new and untried idea. Moreover, I wanted most of them to be leading firms of world-wide scope, for I hoped thus to promote not only good design but also successful exporting. The idea was for members not only to develop products for display in the Festival exhibitions, but simultaneously with the opening of the Festival to place other products, similarly decorated, with their agents in foreign markets to take advantage of the world-wide interest that would be directed towards these new designs from the Festival of Britain. Several members of the Group have been able to do this, though perhaps not as many as I had hoped.

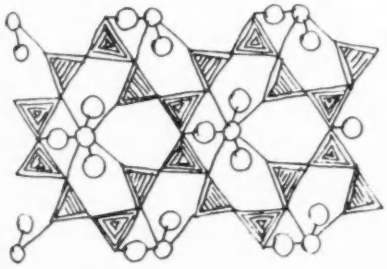


BORIC ACID

Wallpaper: John Line and Sons (William J. Odell): repeat 21 x 18in.



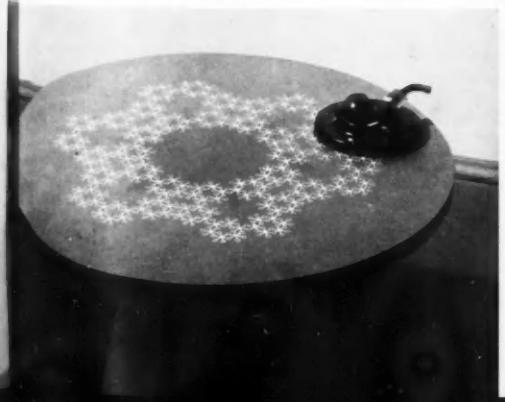
Furnishing fabrics: The Old Bleach Linen Co: repeat 6¼ x 7¾in. and 6¼ x 3¾in.

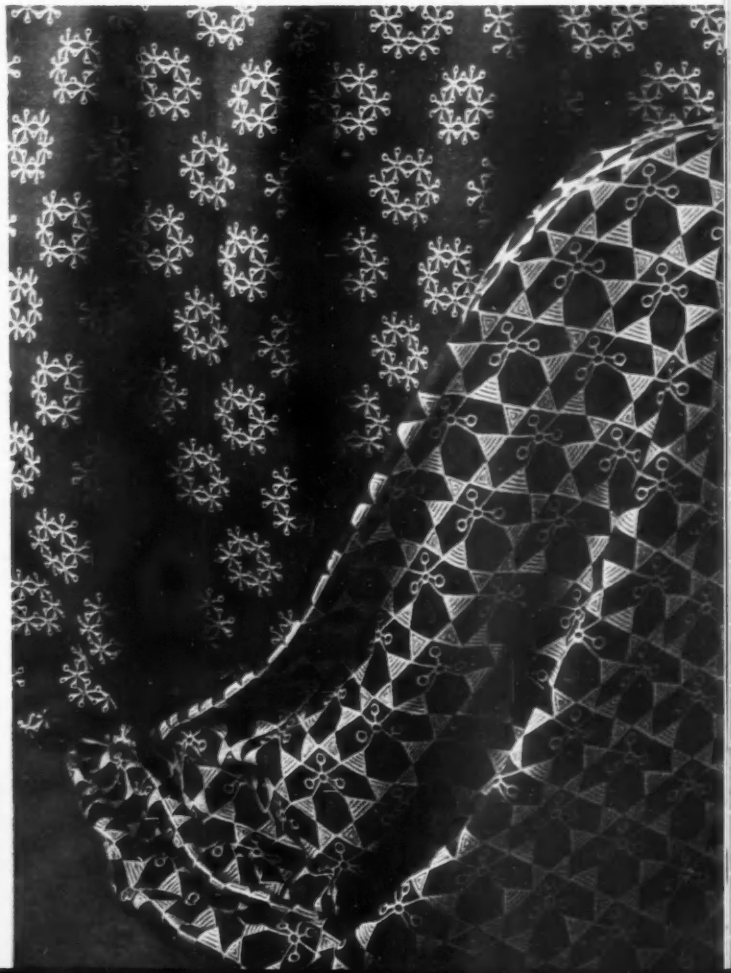


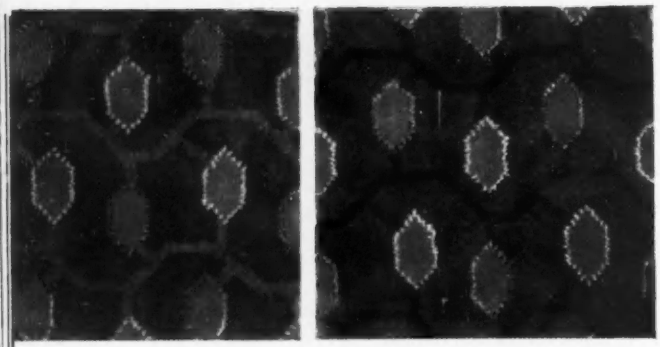
ORTHOCLASE

HYDRARGILLITE

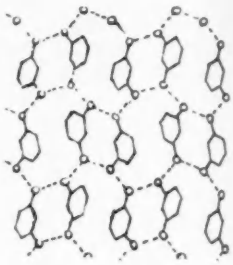
Old Bleach and Warerite have both copied the hydrargillite diagram faithfully, but have altered the spacing differently to suit the two different applications. Plastic table top: Warerite (Martin O. Rowlands)



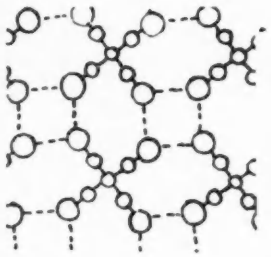




Carpets: James Templeton (R. Anderson): repeat 7 x 4½in. The same design is here shown in two colourings: both to be seen in the Regatta Restaurant. The small dots, representing atoms, have been omitted, and the lozenges have been straightened to suit the weaving

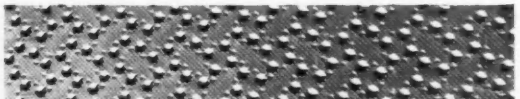


RESORCINOL

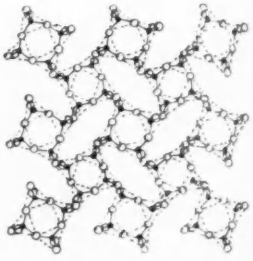


PENTAERYTHRITOL

Moulded glass ashtray: Wood Bros Glass Co (E. Sykes): diameter 4¾in. This ashtray is the only product that attempts to portray the three-*dimensional symmetry shown in a crystal-structure diagram—except for some exciting light fittings produced by GEC for the Science Exhibition. The ashtrays are used in the Regatta Restaurant*



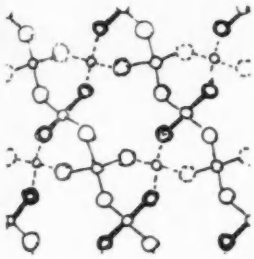
Figured rolled glass: Chance Bros (J. Beresford Evans): repeat ½ x ½in. This design is as unobtrusive as the random-pattern obscured glasses used most frequently today; but it has a delicate charm as well, which comes from the subtlety of the exquisite little design. Two pitfalls in window-glass design were avoided—to prevent cutting to waste for matching, the pattern is on a slant and the repeat small; and so that sunshine does not burn the curtains, the blobs themselves are small



APOPHYLLITE

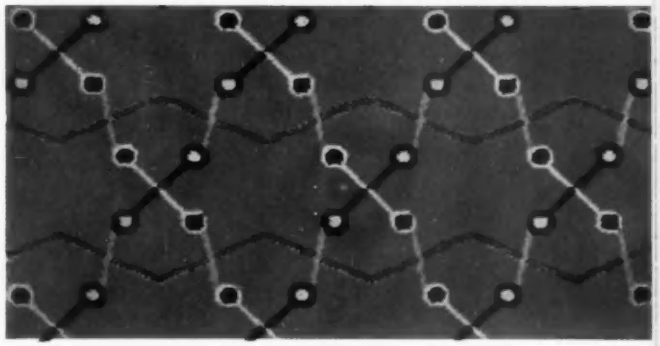
Although I aimed high, the response was remarkable. In those early days everyone said "Yes." There were no refusals until quite recently, when I have attempted to fill the last few gaps in the coverage of industries that could usefully employ decorative pattern. In recent weeks some have regretfully declined on the ground that there was too short a time before the Festival for them to make an effective contribution.

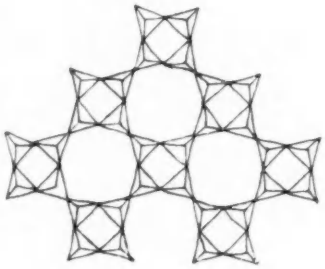
The spirit at meetings of the Group has been



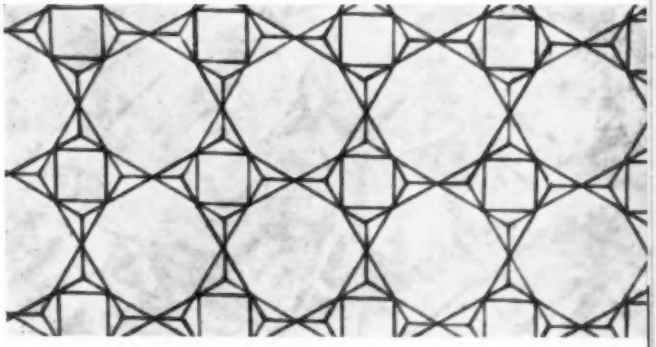
QUARTZ

Carpet: James Templeton (R. Anderson): repeat 8½ x 10½in. One set of dots, for atoms, has been omitted in this adaptation. The diagrams are specially suited to making patterns for carpets, because the strongly marked lattice patterns measure out the space in a room and give it scale



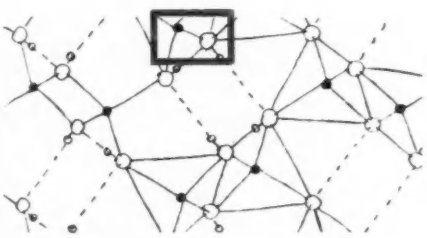


APOPHYLLITE



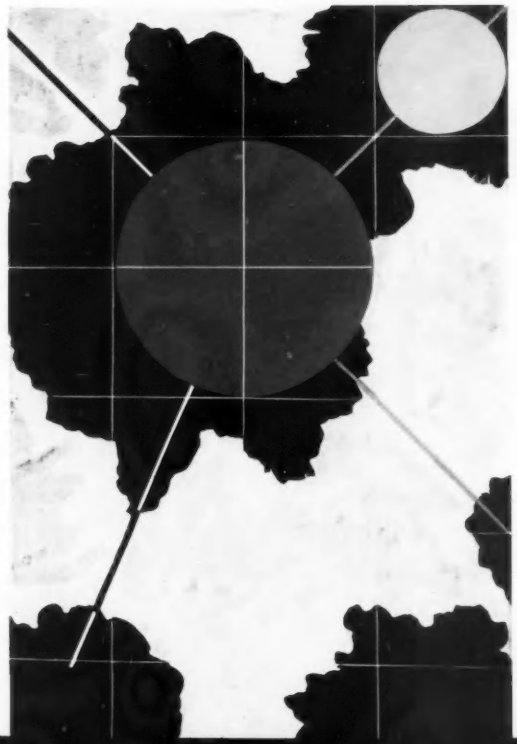
Plastic sheet: Warerite (Martin O. Rowlands): repeat 2 x 2in.

Below, wall-tile, 3 x 2ft.: Carter and Co (Reginald Till): repeat 10 x 17ft.



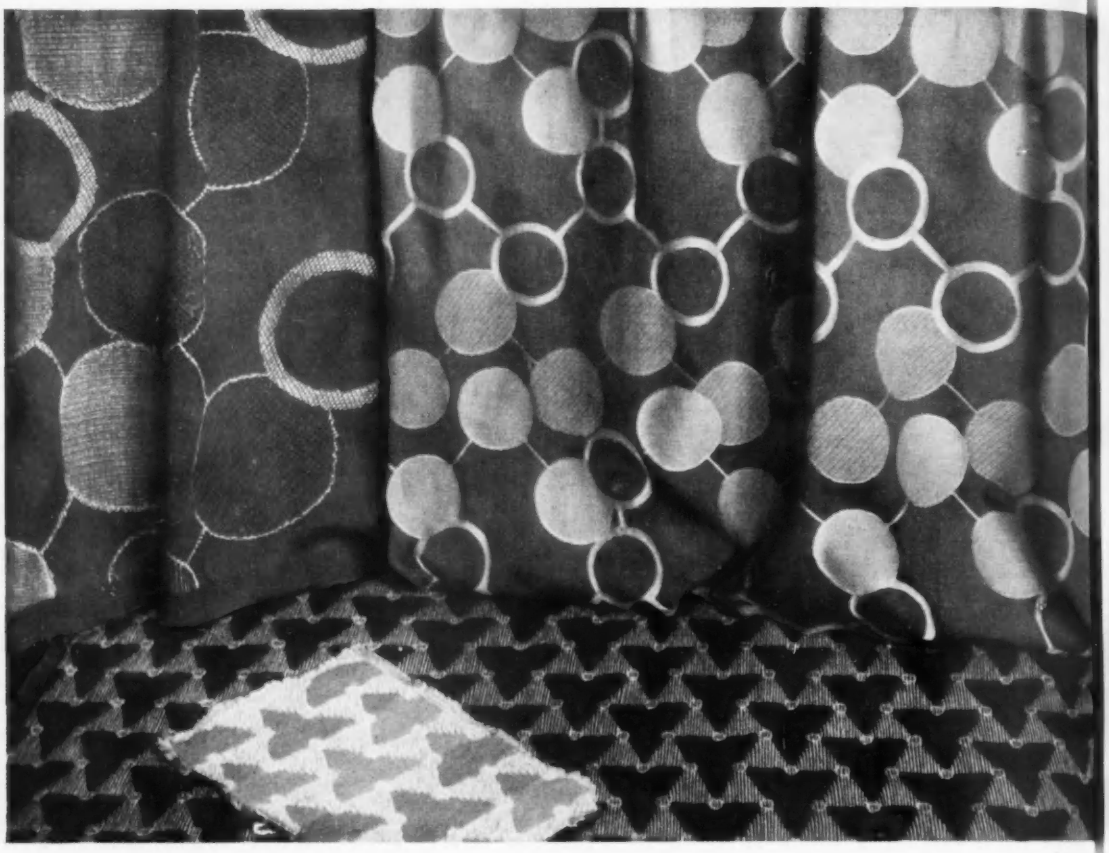
ZINC HYDROXIDE

The portion of the zinc hydroxide diagram included in the sample tile, right, is marked in red on the diagram above. The tile is thus only a small fraction of the design, which is meant for a very large plain wall area

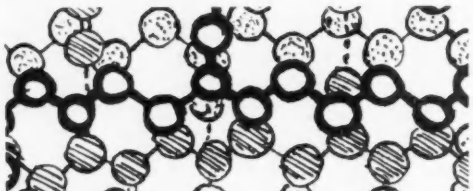


extraordinary. It has been customary for members to bring examples of their work to meetings for discussion and to vie with one another. There has also been an exchange of ideas between meetings. That this work got off to a flying start is particularly due to Hugh McKenna, Templeton's designer, who stole the show at the first meeting with a portfolio full of the most adventurous and stimulating carpet designs.

Apart from the chief importance of the Festival



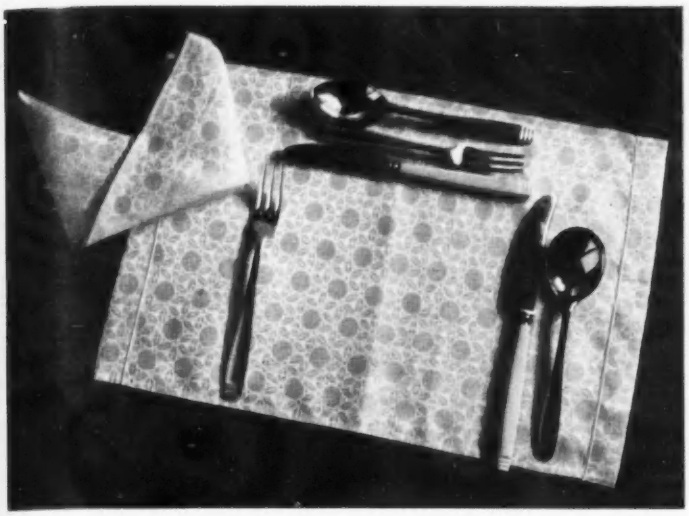
Furnishing fabrics, jacquard woven: Warner and Sons Ltd. Red and green fabrics (Marianne Straub): repeat 34 x 24in. and 17 x 12in. Blue and yellow (Alec Hunter): repeat 3 x 4½in.



NYLON

CHINA CLAY

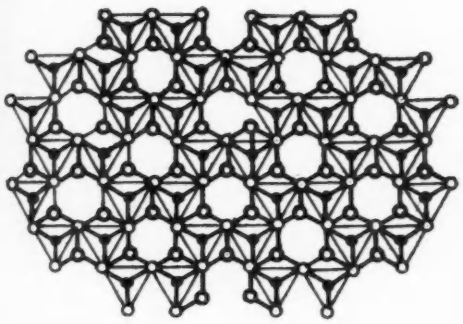
Pattern Group as an essay in co-operation in design development, readers will judge it mostly by its fruits. These can be appraised in the illustrations to this article and in certain displays at some of the Festival exhibitions. Unfortunately some members were invited too late for their contributions to be illustrated here. These are Wedgwood's, R. H. and S. L. Plant and E. Brain and Co (it was thought best, before inviting a potter to come in, to develop and proof photolithographs for pottery at the Royal College of Art); Goodearl Bros (furniture); Spicers (decorated wrapping paper); and London Typographical Designers. But all members, including these, have an exhibit in the two Group displays—in the foyer of the Regatta Restaurant, South Bank Exhibition, and in the Land Travelling Exhibition which visits four cities,



Tie silk: Vanners and Fennell (B. Rowland): repeat ½in. x ¾in. Here is shown, in actual size, the material of the left-hand tie of the pair shown on p. 15, for comparison with other designs based on this china-clay diagram

Above; linen damask table-mat and napkin: Old Bleach: repeat 1¼ x 2½in. (The flatware is of the same basic pattern as that shown on p. 19 but without the decoration)

Below: wineglass with enamelled motif: Stevens and Williams (S. W. Thompson): motif 1 x 1in.
Part of the same diagram as for the textiles shown on this page has been extracted and modified as an isolated motif



CHINA CLAY

Manchester, Birmingham, Leeds and Nottingham.

The centrepiece for display of the patterns is the furnishing and equipment of the Regatta Restaurant. In this the Group has been most fortunate in the appointment of the caterer for the restaurant, for Ernest Corscadden, manager for Hagenbach's of Wakefield, is a man of taste and culture who has entered fully into the spirit of the project.

Not all members of the Group have provided furnishings for the Restaurant, but the public will notice Festival Patterns at a number of points, on the exhibits or on the equipment of the Festival exhibitions. They will see them, too, in shops—abroad as well as at home.

ACKNOWLEDGMENTS: The colour illustration of Dunlop sheeting (p. 16) is reproduced by courtesy of *The Queen*. All other colour blocks accompanying this article have been made by Wace and Co Ltd, Dome Engraving Ltd, and C and E Layton Ltd, from colour photographs by Richard Sharpe Studios Ltd

The bathroom shelf and, no less, the shop counter look brighter for Beetle — the colourful plastic material for moulding rigid containers. In the packaging of cosmetic and toilet requisites Beetle excels, not only for its strength and resistance to fats, oil and grease, but above all for its wide range of beautiful colours in translucent, semi-translucent and opaque shades. The well-designed, warmly textured Beetle container has an almost unlimited re-use life, remaining a permanent reminder of your brand name long after the contents are consumed. So if your products find their way to the bathroom shelf, or even if they don't and you are looking for a strong, colourful, inexpensive pack, be sure when you are considering materials to give a thought to

BEETLE AND SCARAB

AMINOPLASTIC MOULDING POWDERS

B·I·P GROUP

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FIVE CASE-HISTORIES OF PRODUCT DESIGN

The products whose development is described below suggest the wide scope of industrial design today. None of them are domestic consumer-goods, and none of them have been redesigned solely for appearance sake —but in each case appearance has rightly been regarded as of some importance.

1: Cinema seat

THE PRODUCT: A comfortable, adjustable seat for cinema or theatre.

THE PROBLEM: The grouping of seats in a series of widening and ascending arcs from screen or stage, cut by gangways of uniform width, calls for the individual consideration of each row. In the past it has often necessitated special seats, because of differences in floor gradients and lengths and curvature of rows. In a typical cinema chair, two side castings are bolted to the floor, and to obtain the required rake wedging must be made-up on the site. Backs may have to be of different widths in order to fit a particular number of seats into a given row. In these conditions, fitting-out costs are high and the equipment of distant installations is difficult.

Designers were well aware of a wide demand for efficient auditorium seating, but their ability to satisfy it depended on the production of a generally acceptable chair, capable of economic packing and transport and of being fitted in any part of a theatre, perhaps by unskilled people.

THE SOLUTION: A chair which is adjustable in width by one inch and can also be adjusted in angle (in relation to the angle of the separate base-plate) before it is tightened.

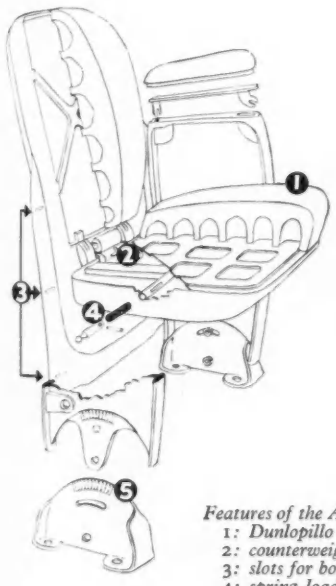
Before installing this type of chair, the cinema floor is marked out in rows and gangways, and the lengths of the rows are divided into units of not less than 19 nor more than 20 inches, the minimum and maximum seat widths. A quadrant-shaped casting is bolted at every end and sub-division, and on each is fitted an aluminium die-cast standard, adjusted vertically by plumb line before the engaging segments are tightened.

The back panels of the seats are metal pressings; they overlap, and enable the seats to be fastened together in rows by six bolts which pass through slotted holes. The upper bolts secure the detachable arm-rests also.

The seats themselves are counterweighted; also, they are mounted on spring-loaded pivots which automatically take up variations in width. The upholstery consists of specially designed Dunlopillo units, firmly held in position by fabric covers which have wired edges and are levered into position in the same manner as motor-car tyres.

Pressed-steel aisle panels, with built-in lighting, complete the installation. The metalwork is stove-enamelled in maroon, beige or grey, and a wide choice of cover materials—wool, velvet, duck, Rexine—makes it possible to meet local needs in different parts of the world. For shipment, the chairs are completely knocked down; all components, including cushioning and covers, are packed in the right sequence for assembly.

The chair, which has now been in quantity production for some time, is known as the *Ambassador*. It was designed by the manufacturers, G. B. Kalee Ltd, and produced "straight from the drawing-board" without prototypes. J. B. J.



Features of the Ambassador cinema seat include:
1: *Dunlopillo upholstery*
2: *counterweight*
3: *slots for bolting to adjacent seat*
4: *spring-loaded seat pivot*
5: *quadrant-shaped castings, allowing vertical adjustment*

Sheet metal abhors a flat surface, and the flared shape of the end-plate (above, left) is justified on technical grounds—perhaps more easily than it can be justified aesthetically. However, the earlier type of cinema seat (right) was even less pleasant in appearance—and it did not lend itself to efficient quantity production

2: Bell for wall mounting

THE PRODUCT: A bell suitable for use in hospitals, hotels or private houses.
THE PROBLEM: To design a neater and less conspicuous bell than earlier models, having in mind the need for economical production.

THE SOLUTION: The manufacturers' design staff rejected the traditional dome-shaped gong in favour of a flat disc of resonant metal—a type of gong they had used previously, but only in heavy-duty bells intended primarily for use in ships.

The new model, which has a gong of 7in. diameter, projects only 1⅝in. from the surface to which it is fixed. This projection is enough to accommodate internally a flat pocket-lamp battery (though an external battery, or transformer, can be used alternatively) and the complete movement. In this, the armature, instead of being attracted to the ends of the poles in the ordinary way, is attracted to the *sides* of extended pole pieces.

This unusual mechanical-design feature, which helps to make the reduced depth possible, calls for precision in the making of the component parts. This achieved, however, the bells can be assembled entirely by female labour—with the aid of simple jigs and fixtures. The *Dis-co-bell*, which is made by Gent and Co Ltd, Leicester, sells at £1 12*s*. 6*d*. Besides the applications mentioned above, it is being used in schools, either as a fire alarm or as a class-changing bell.

The neatness of the new disc-type bell is evident when it is seen beside other models produced by the same manufacturers for different uses. The end-on view above emphasises its slimness: it projects only 1⅝in. from the surface on which it is mounted

3: Marine fire-alarm indicator

THE PRODUCT: These indicators are used aboard ship; usually, they are sited in the wheelhouse on the bridge. When an alarm is given from any part of the ship, the location of the fire is visibly indicated on the board, while an external bell or buzzer gives audible warning also. In the indicator casing there is a compartment which holds two telephone hand-sets; one of these can be jacked into a socket in the board, and the other into the alarm from which the warning has been given, so that the bridge is in touch by telephone with the fire area.

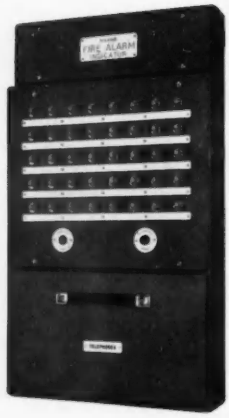
THE PROBLEM: To modernise an existing product with the aim of reducing size, weight, and, if possible, production cost, while increasing efficiency.

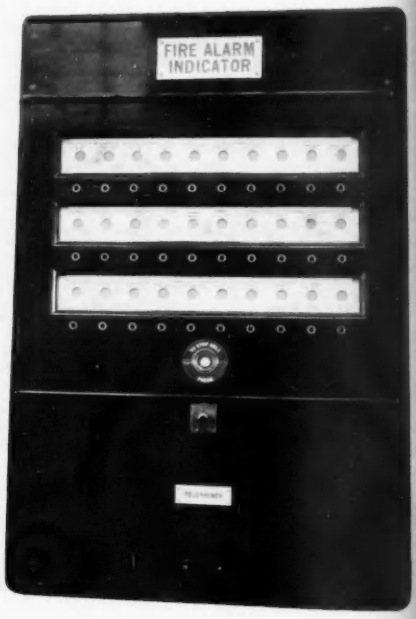
THE SOLUTION: The conventional type of indicator is a large box-like fixture in mahogany or teak, with 30 signals in the form of car-type lamps behind frosted glass windows and zinc screens. In the new model, telephone-type lamps are used, behind coloured plastic dome-shaped caps. These save so much space that a 30 per cent increase has been made in the number of signals. Moreover, the new type of lamp can be replaced without opening the case.

The overall measurements of the indicator have been reduced by about 20 per cent and its weight by about 15 per cent by using a metal case. This is of light-gauge sheet steel, treated against corrosion and given a silver crinkle finish.

The manufacturers (GEC) state that the redesign has reduced the overall costs of the indicator.

continued on page 31

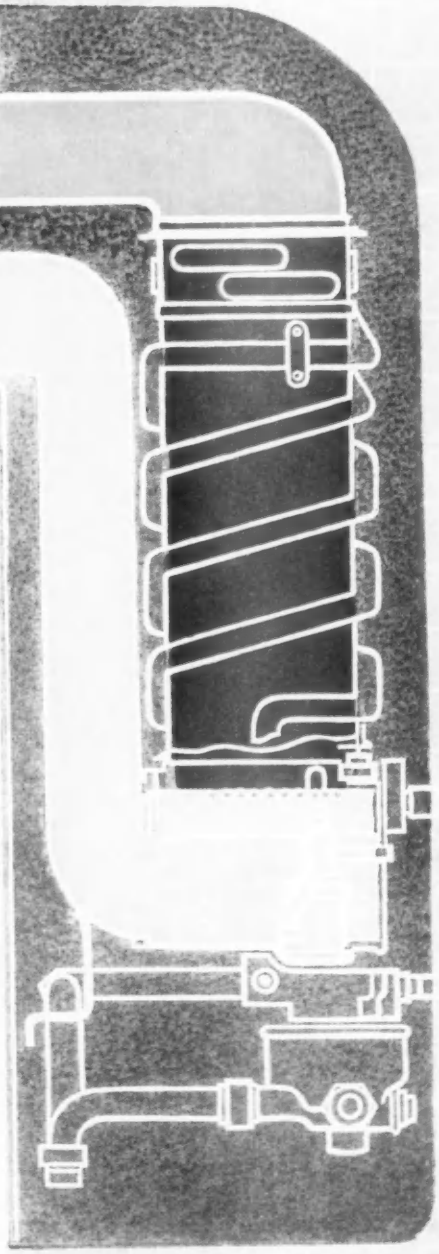




The new indicator, above, has 40 signals instead of 30, yet it is smaller than the old model. (The reduction in size, however, is not in the exact proportion of these illustrations)

SC

SCOT *INTRODUCE A NEW PRINCIPLE*



The new Ascot 712 Balanced Flue Multipoint gas water heater is not merely new in design. It is entirely new in conception.

Unlike all existing gas water heaters it does not draw oxygen to feed the burner from the room in which it is installed.

The combustion chamber is completely sealed off from the room. A short double ducting both takes in air for combustion and carries away flue products through a neat flat terminal on an outside wall. The pressures are so balanced that proper circulation is maintained in any atmospheric conditions. The advantages of this arrangement are obvious.

Ascot are the first gas water heater manufacturers in the world to solve this problem of balancing pressures in the double flue—because they have the background experience, the research facilities and a volume of production large enough to sustain this and other development programmes.

Several hundred of the new heaters have been installed and kept under observation many months, and it is hoped that production on a commercial scale, though necessarily limited, will begin during 1951. Meantime the fullest information and assistance is offered to architects and other planners who may wish to consider installing this new multipoint heater in buildings now on the drawing-board.

ASCOT GAS WATER HEATERS, LIMITED
43 PARK STREET, LONDON, W.1. TELEPHONE: GRO 4491

ASCOT

continued from p. 28

4: Audiometer

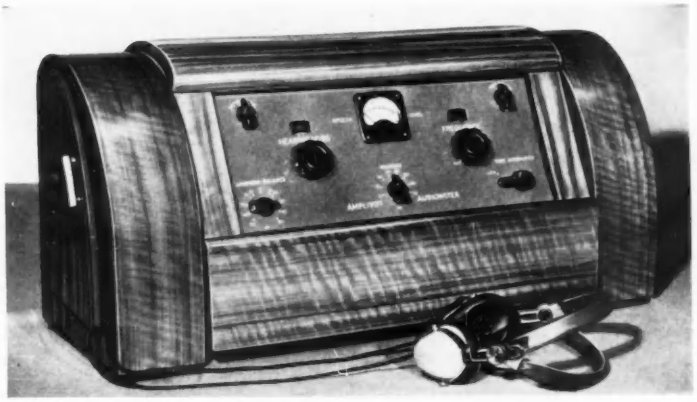
THE PRODUCT: An instrument for measuring acuteness of hearing.

THE PROBLEM: To produce an improved model of an established instrument, which would be more compact and convenient in use. The earlier model, when submitted to the Council of Industrial Design for possible inclusion in the 1951 Stock List, had been criticised on the grounds that its cabinet was too florid in appearance for a medical appliance. The manufacturers, who were impressed by this criticism, decided that the new model should have a cabinet of cleaner and more appropriate design.

THE SOLUTION: Space for accessories, which was provided in the broad and rather bulbous end-pillars of the Model 60, is provided in a drawer in the base of the Model 61. This rearrangement reduces the amount of desk-space which the instrument requires (it is now 20½ × 11½in.), and at the same time brings the control panel up to the eye-level of the seated operator.

Although the new model is more reserved and more of a joiner's job than its over-styled predecessor, it is still influenced by the former moulded shape. There is no apparent reason for retaining the swept-back curves of the end panels when they bear no relation to the flat canted control panel. These once fashionable shapes smack today of out-moded modernism, such as is still encountered in the radio industry.

The manufacturers are Amplivox Ltd, London, makers of hearing aids and medical acoustic equipment.



The cabinet above was criticised as being inappropriate to a medical appliance

The cabinet of the newest type of audiometer—the Amplivox Model 61, right—requires less desk-space than the old

5: Coin-weighing machine

THE PRODUCT: A machine for use in mints, weighing coin-blanks or coins and automatically accepting those of the right weight, rejecting those which are too light or too heavy (with a tolerance of one-tenth of a grain).

THE PROBLEM: The makers' first machine of this type had been designed in the nineteenth century for hand operation. At a later date—but still some years ago—it had been modified for operation by an electric motor or other form of power; the basic mechanism was, however, unchanged. These early weighers were made in some numbers and used in many countries.

Recently, a Middle East mint placed an order for a coin-weighing machine of this type, and the possibility of further orders was foreseen. The manufacturers, L. Oertling Ltd, decided that the accuracy and reliability of the original mechanism could not be bettered, and there was no point in changing it for the sake of change. They realised, however, the desirability of fitting it in a housing of more modern type, and at the same time making use of new materials and standard components which had become available.

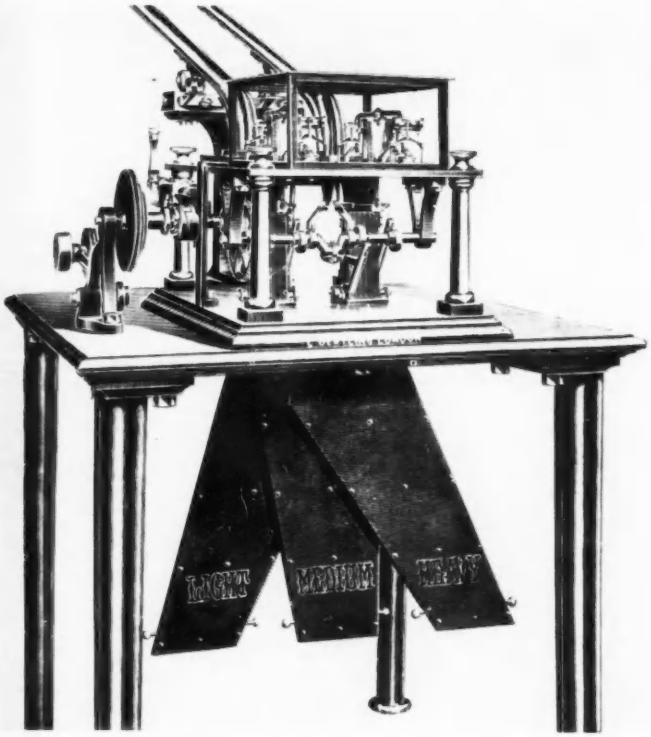
THE SOLUTION: The mechanism, which in earlier models was attached by brass pillars to a table with a burnished steel top, is mounted on a column—a casting, of standard machine-tool pattern. The three containers for light, heavy and correct-weight coins, instead of being made in the form of separate trays, are incorporated as drawers in the

continued on page 33

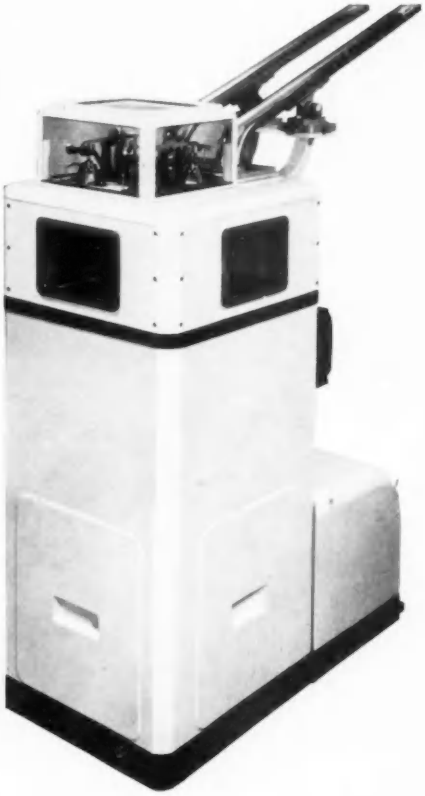
continued from p. 31

base of this column. Working parts which had previously been exposed are now enclosed, behind glass panels so that their action is still visible. The electric motor (at back) is in a separate housing, and the drive is through a special belt system designed to avoid the transmission of any vibration to the weighing mechanism.

The illustration below shows the form of the new machine. What it does not show is the maker's name, which slopes across the front panel almost from side to side; this we illustrate separately, on a slightly larger scale, at foot of page. We submit that a name as honoured in the industry as Oertling's deserves better presentation than this: there are several styles of lettering more appropriate to the ingenious mechanism and precise workmanship of the coin-weigher. To find one such style, Oertling's need look no further than their own catalogue cover. A. D.



An early version of the Oertling coin-weighing machine. This illustration is reproduced from the firm's 1909 *catalogue, but the design was already some years old at that time. The machine was originally designed to be driven by hand, but it was later adapted for use with an electric motor*



In the new model, the principle of operation and the design of the weighing mechanism remain unchanged, but there is a glass cover for parts which were formerly exposed and the housing as a whole is more in keeping with contemporary machine design

Below, the same name is reproduced in two contrasting forms—left, as it appears on the coin-weighing machine (from which it has been removed in our photograph); right, from the cover of Oertling's current catalogue. The latter form would be at least as suitable as the former for use in a nameplate, more appropriate to the precision of the product, and no less readable

Oertling

OERTLING

'Design for Welcome' : hotelkeepers' views—and guests'

SIR: We were very interested to read the article "Design for Welcome," which we found particularly stimulating. . . .

There is one point in Mr Gloag's article on which we should be glad of help. He states: "The key that you are ultimately given is either of enormous proportions, or else has attached to it a chunk of wood or metal so that you shall not forget it when you go—as if you could!" Would it surprise you to learn that during the last three months we have found it necessary to replace no less than 800 keys which were taken away by visitors when they left? If you hear of anyone who has succeeded in designing a key label which the visitor will find satisfactory, which will yet be a sufficient reminder to him not to take it—which, moreover, can be produced at reasonable cost, we shall be very grateful to be informed.

M. G. PHILLIPS,
Director,
Trust Houses Ltd,
London WC2

An ancient jest?

SIR: Your excellent publication has much to commend it and in No. 27 I appreciate the editorial note which precedes "Design for Welcome" by John Gloag.

Unfortunately such a bitter attack on hotels in general does no good and much harm. It draws a thoroughly incorrect picture of hotels in general, and if some of the appalling conditions quoted can be found, they must be unique cases. Would it be true to say, judging from the gallery of Olympia during a BIF, that there are no designers in England?

Hotels in England compare well with hotels in France, and with some consideration in the removal of stifling controls, English hotels would soon be thrusting ahead.

As recently as October last year, the British Hotels and Restaurants Association asked my brother Gordon Russell to speak, at a Conference in Harrogate, upon Design. The Association greatly appreciated his coming and I think his talk did good. Alas, articles such as the one written by Mr Gloag turn hotel-keepers against designers when closer co-operation could bear rich and useful fruit.

I suppose the pleasure found in journalistic circles in slanging hotels in England is almost as ancient as the cheap jests about mothers-in-law on the variety stage. It is almost a British tradition. Nevertheless, I hope that no hotel man writes an article about the idiosyncrasies of designers in an hotel journal, although I have little doubt that such an article would also raise a malicious laugh.

D. G. S. RUSSELL,
Director,
The Lygon Arms,
Broadway, Worcs

Fellow-sufferer, but . . .

SIR: I was most interested to read Mr Gloag's article "Design for Welcome" in the March issue of DESIGN. I too have frequently suffered from English hotels in the manner which Mr Gloag has described, but it is only fair to say that quite a few hoteliers take the matter of furnishing their hotels seriously.

As an example, the work which Heal's Contracts Ltd have recently carried out at White's Hotel gives an idea of the contemporary treatment now being introduced. The hotel was originally two old large houses in the Bayswater Road which had to be made into a workable and modern hotel.

By the use of panelling, concrete screens, false ceilings, etc, this has been achieved, and visitors to the hotel will not be aware, when inside the building, that it is not of new construction.

There are other promising signs that the hotels of this country are at last beginning to realise the importance of being well-furnished, judging by the work which we have in hand.

JOHN F. EATON,
Heal's Contracts Ltd,
London W1

More letters overleaf

Hotelkeepers today work under many difficulties, but the difficulties are not all insuperable. In Bayswater, two old houses were made into "a workable and modern hotel." The lounge is separated from the dining room by a reeded glass and concrete screen

"There are plenty of nice hotels"

SIR: What has happened to John Gloag, whose writings I have always admired? Or did you reprint his "Design for Welcome" article from something that he must have written decades ago?

The drawings are maliciously witty and no one can read Mr Gloag without being entertained, but he does not offer a single constructive suggestion. I should have thought this sort of *cri de coeur* has been overdone.

I claim to know this country pretty extensively and I should be delighted to escort Mr Gloag on a cross-country tour. I will guarantee that he will stay at a different hotel every night that is the complete opposite of what he imagines these places to be. Believe me, I have no particular brief for the British hotel—the plumbing is un-American and too often the cook relies upon the bar to deaden the palate before tackling his *chef d'œuvre*, but there are plenty of nice hotels and hotels, too, whose interiors are not aesthetically revolting.

H. C. TIMEWELL,
London W1

Enjoyment—and just criticism

SIR: I should like to congratulate you on your publication of the article by John Gloag on "Design for Welcome" and upon the excellent illustrations by Walter Goetz.

Whilst none of us would wish to take the article too seriously, I believe that most readers, and not least the hotel people themselves, will have found much enjoyment and more than a grain of just criticism in it. I certainly recognise several of my own uncomfortable travelling experiences in Mr Gloag's banter.

FRANK SAMPSON,
Sheffield 10

The author replies

These are John Gloag's comments on the correspondence on page 35 and above:

If every hotel-keeper had but a tenth part of the genius of the late Sidney Russell and his gifted son, D. G. S. Russell, we might luxuriate in standards of welcome and comfort, comparable to those one enjoys at the Lygon Arms. But because such standards are so rare, are consumers who happen to be articulate to remain quiet and tactful about defects that are far too common? In our country, the pub is generally a splendid place—true to its traditional character, well designed and well managed. When hotels can give the welcome that a good pub can and does give, then we shall have something to be proud of; but we shall not get that sort of welcome, so long as guests are placidly tolerant of the defects that I reported—for I was not inventing them—and are soothed by smooth phrases like "the inevitability of gradualness." Easygoing people who are indolently optimistic about improvements coming about somehow or other get the hotels they deserve. Only people who demand good service and good design get it.

Status—in Britain and America

Replying to W. A. G. Pugh's letter in DESIGN for April (page 31), Norbert Dutton writes:

I cannot comment on the "specific competence" of a specialist plastics designer to study design and appearance in all sections of the packaging industry—it doubtless depends on the individual. I merely observed that the inclusion of such qualifications in the Specialist Team on Packaging was not apparent. I did not infer, wrongly or otherwise, that other members of the Team were salesmen and accountants. I do not consider the ability of American designers superior in any way to that of British designers, nor American design standards superior to British; I think that American designers are more fortunate in enjoying, in the words of the Report, *the confidence of the clients.*

About the Englechair

George Englesmith, MRAIC, gives the following additional information on the design of his *Englechair*, illustrated in DESIGN for March, page 23:

My chair is not laminated or moulded, but is simply of standard ¼-inch plywood bent in a bending machine. It is demountable, being two pieces of bent plywood and bent ¾-inch tubular steel legs held together with 2-inch wing bolts. These parts nest for shipping, and can be replaced should they become damaged.

The upholstery [is in the form of] two sacks . . . that slip on over the four edges of the plywood in two sections. They contain four pieces of 2-inch-thick rubberised horsehair which can be readily removed when the fabric must go to the laundry or dyer. The upholstery actually closes the gap shown between the arms and back. . . .

'THERE IS SO MUCH LEEWAY TO MAKE UP'

SIR BEN LOCKSPEISER ON MACHINE DESIGN *continued from page 7*

ratio of work output to input. This has led to too exclusive attention being paid to reduction of the physical effort required of the operative: it is too readily believed that any equipment which reduces the physical effort of the operative inevitably increases output and reduces fatigue. But in these matters of human activity at work, regard must be had to the whole man, and particularly to the integrated action of the sensory motor system. The reduction of muscular effort has often involved an *increase* in the load imposed on the sensory side. The operator is required to pay increasing attention to dials, indicators and controls, to an extent that is liable to overload the sensory side of the nervous system or call for excessively intricate co-ordination of sensory and motor functions. Such a state of affairs, quite as much as sheer muscular effort, induces what is commonly called fatigue—a condition involving both psychological and physiological components.

One approach, through time and motion study, and the layout and management of factories, aims at making the best use of such machines as we have. Ergonomics looks farther; it seeks to influence machine design. Although our knowledge of the fundamental biological problems involved is far from complete, enough is known to justify the introduction of biological considerations as a distinctive contribution to machine design; and it is not much use to bring the biologist into the problem when machinery and equipment have reached the stages of production and use. At best, he can then only reach a compromise by suggesting minor alterations in layout or operational routine; at worst, he may recommend scrapping and redesigning. Clearly, his advice should be sought at the earliest stages of preliminary design, prototyping and field trial, when radical changes of design, if necessary, are still economically possible.

EXHIBITIONS IN LONDON

THESE ARE ADDITIONAL to the many official Festival exhibitions:

At Goldsmiths' Hall, Foster Lane, EC2; historic plate of the City of London; to June 16. Silverwork by contemporary British craftsmen; 2 July to 31 August.

At Wedgwood's, 34 Wigmore Street, W1; early Wedgwood ware; to 30 September.

At Heal's, 196 Tottenham Court Road, W1; contemporary furniture and furnishings; to 30 September.

At the New Exhibition Halls, Army and Navy Stores, Victoria Street, SW1; historical display of leather goods (Museum of Leathercraft); 18 June to 7 July.

At the Royal Society of Arts; *see page 38.*

Why we believe in good design

IT IS COMMON KNOWLEDGE that today's householder is familiar not only with the *term* 'good design' but with its practical significance. Our own particular evidence of this is the enormous demand for the cookers, the stoves, the boilers and the baths that we have put on the market since the war. Aga, Rayburn, Raymond, Junior General, Otto, Agamatic, Arcadian — these are some of the names which in their field have come to mean unsurpassed excellence to a vast and appreciative public.

Good domestic design is nowhere more essential than in that axial room of the house — the kitchen. Nowadays it is not enough that cooking and heating installations should convert fuel efficiently into B.Th.U.s. Since they must be operated and maintained by people whose time is precious, they should be simple to operate, easy to clean, agreeable to look at and to live with.

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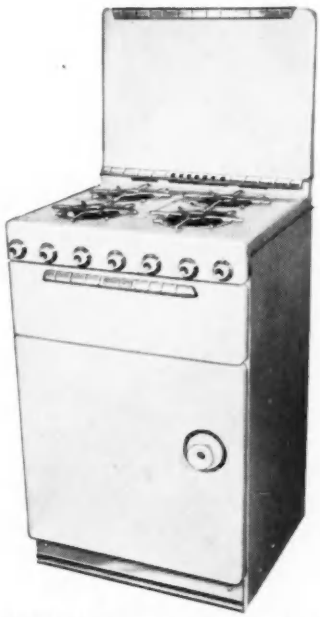

THE RAYMOND, *a gas cooker designed by General Gas Appliances Ltd., and styled by Raymond Loewy, with full automatic ignition, larger grill and oven, safety taps, exceptional cooking area and performance — white enamel finish.*

NOTEBOOK

Of exhibitions

IN THE BLAZE OF publicity which attended the opening of the official Festival exhibitions and the BIF, some other exhibitions run the risk of being overlooked. Readers of DESIGN ought not to miss the *Exhibition of Exhibitions* at the Royal Society of Arts (John Adam Street, Adelphi, WC2; daily until 30 September; admission 1*s*). The Society held "the first industrial exhibition in the world" 190 years ago, and several important types of exhibition have arisen through its initiative.

Hulme Chadwick designed the present exhibition, temporarily transforming the Society's Lecture Hall for the purpose. Exhibits range from models of early farm implements to "*Innocence*, in Statuary Porcelain, after the design by J. N. Foley . . . executed exclusively for the Art Union of London, 1848." In addition, there are photo-murals and photographs, old as well as new, to help in telling the story of exhibitions from 1760 to 1951.

Penrose again

Many people would, we believe, agree that *Penrose Annual* is more than just a book—in the world of printing and graphic arts, it is an event. This year, the text is again divided into two sections, General (concerned largely with design) and Technical; and if few readers can fully appreciate the two parts of the book, that is a fault in the present state of civilisation, not in *Penrose*.

Among the contributors, the ordinary reader will no doubt enjoy the spectacle of experts disagreeing; for example, Harry Carter condemns the Swiss standardisation of poster sizes while Ashley praises it. The book is, as always, finely printed; its typographical design (by Herbert Spencer, MSIA) is interesting though it may not win such wide approval as last year's. At 25*s*, *Penrose* (published by Lund Humphries) is very good value.

Two competitions

Prizes are offered to retailers and to students in an Ekco window display competition: details from E. K. Cole Ltd, Southend-on-Sea, Essex.

Furnishing has announced its 13th carpet design competition, open to art and technical students and people engaged in the carpet trades: details from the Editor, *Furnishing*, Drury House, Russell Street, Drury Lane, London WC2.

SIA's new Fellows

The following have been elected Fellows of the Society of Industrial Artists: Gordon Andrews, E. M. Cuddy, T. C. Maylor, Marjorie Field Rhoades, Ronald Searle, Basil Spence, S. John Woods.

In DESIGN last month Gordon Cullen's name was given the affix MSIA (p. 9) and Frank Austin's, FSIA (p. 25); these two designers should have been shown as Gordon Cullen, FSIA, and Frank Austin, MSIA.

Tailpiece

From a BIF press hand-out we note that the exhibits at Castle Bromwich included "a mobile canteen for cows, designed for wide open spaces"; its trade name, *Cowfeteria*.

DESIGN ADVICE

MANUFACTURERS REQUIRING THE SERVICES OF DESIGNERS, *whether for staff positions or in a consultant capacity, are invited to apply to the Design Advice Section, Council of Industrial Design, Tilbury House, Petty France, London SW1, for a short list of designers suitable to their particular purposes, which should be explained in some detail. This service is gratis and incurs no obligation.*

ADVERTISEMENTS

Rates: 2s per line, minimum 6s. Box number, 1s extra. Advertisement representative, Dennis W. Mayes, 69 Fleet Street, London EC4. Telephone: CENtral 4447.

SYLVIA PATTERNED PAPERS are the latest for display. SYLVIA BINDERS' STAMPING BRASSES give ten-day service. Sylvia Book Products, 62 Belvoir Drive, Leicester.

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DESIGNER-DRAUGHTSMAN wanted for interiors and exhibitions. Inter RIBA standard. Capable of producing accurate working details and coloured perspectives. Write, stating age, experience and salary required to Charles Kenrick, 15 Berners Street, W1.

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The Director of Education invites applications for the post of Senior Assistant in the Department of Arts and Crafts, Khartoum Technical Institute, aged not less than 30 on the 1st of July, 1951.

Candidates should possess good qualifications in craftwork and be experienced in Art Teaching. Preference will be given to an A.R.C.A.

Crafts of special interest include typography and process reproduction, cabinet making, jewellery, metalwork, wood and stone carving and textiles.

Appointment will be on probation for either a Long Term Contract (salary range £E.617–£E.1316) with special post-service gratuity, or a Provident Fund Contract (salary range £E.720–£E.1547) or a Short Term Contract (salary range £E.771–£E.1644) with different post-service benefits.

Cost of Living Allowance varying between £E.142 and £E.352 p.a. according to the number of dependents is at present payable, and, subject to certain limitations, an Outfit Allowance of £E.60 is payable on appointment. Free passage on appointment. There is at present NO INCOME TAX in the Sudan.

Further particulars and application forms are available on written application, from the Sudan Agent in London, Sudan Agency, Wellington House, Buckingham Gate, London, SW1. Please mark envelope "Senior Assistant, Art.-4/308."

ELECTRIC LIGHT FITTINGS: First-class designer wanted by firm of standing. The appointment offers exceptional opportunities for a highly qualified man. All applications will be treated in strictest confidence. Box 24, DESIGN, Tilbury House, Petty France, London SW1.

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ALUMINIUM

ADORNED with rubies and sapphires from the Mogôk mines of Burma this Shan woman prepares her food. These jewels and the common clay of her ornate bowl are but a few of the many minerals containing aluminium. Though first isolated in 1826, it was not until 1886 that its production became commercially practicable. Most of the world's aluminium is now produced by dissolving an ore named bauxite in molten cryolite, a mineral obtained from Greenland, and passing an electric current through the solution. In combination with other metals such as magnesium or copper, aluminium forms light alloys, some of which, though only about one third of the weight of steel, are just as strong and do not rust. The famous statue of Eros in Piccadilly Circus, one of the earliest large aluminium castings, shows no signs of corrosion after 40 years exposure to London smoke.

One of the largest factories producing wrought aluminium and its alloys in the form of sheet, strip and extrusions is the I.C.I. works at Waunarlwydd in South Wales. These go to help in the production of all manner of finished articles from saucepans to aeroplanes, scaffolding poles to ashtrays, motor car parts to egg cups.

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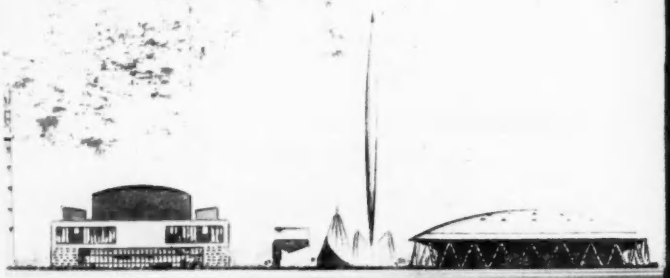
PATTERN BUILDING from MOLECULAR STRUCTURES



Fresh impetus has been given to the development of new patterns for interior decorative schemes by the work of the Festival of Britain Pattern Group on crystallographic designs. As members of this Group we have developed several new patterns for the range of super-hard WARERITE Laminated Plastics. The two we illustrate will be used for walls, doors and table tops in the Regatta Restaurant and other Festival buildings.

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